

BUTANE-PROPANE

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DECEMBER, 1952

BUTANE-PROPANE
News



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VOLUME 14 • NUMBER 12

CIRCULATION NOW 12,000

A JENKINS PUBLICATION

Publication Office

Los Angeles (4)—198 So. Alvarado St.
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BUTANE-PROPANE News is published monthly. Copyright 1952 by Jenkins Publications, Inc., at 198 So. Alvarado St., Los Angeles 4, California. Subscription price: United States and U. S. Possessions, Canada, and countries in Pan-American Postal Union (in advance), 50c per copy, one year \$2; two years \$3. All other countries one year \$4; two years \$7. Entered as second-class matter May 29, 1939, at the post office at Los Angeles, California, under the Act of March 3, 1879. Member of Audit Bureau of Circulation, Controlled Circulation Audit, Liquefied Petroleum Gas Assn., National Butane-Propane Assn.

Publishers: GAS, The Magazine of the Gas Utility Industry; HANDBOOK BUTANE-PROPANE GASES; THE BOTTLED GAS MANUAL; BUTANE-PROPANE POWER MANUAL; Annual BUTANE-PROPANE News CATALOG; LPG BULK PLANT MAILING LIST SERVICE; WESTERN METALS.

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HEADQUARTERS FOR LP-GAS INFORMATION SINCE 1931

NEW MEXICO

We have a problem with a couple of LPG ranges that we are certain you can help us straighten out.

The oven burner compartment does not have a door and when the oven is on minimum flame and we close the door the burner and pilot (not automatic) go out. The slight jar seems to be the cause but we can't figure out how to eliminate it.

M.L.H.

It appears from your description of the trouble which you are having that the by-pass adjustment in the oven temperature control valve is set too low. Refer to the instruction manual for instructions on making the proper adjustments.

A careful inspection may disclose that there is a baffle or shield plate out of place, thereby allowing the burner to be subjected to a sudden draft as the door closes.

The adjustment of the oven control bypass must be made carefully so that the minimum flame is not too high. Ovens should be able to maintain a minimum controlled temperature of 250°F.—Ed.

NEVADA

I would like to get a comparison between propane gas and bunker C fuel oil on cost with a 2-cent differential. For example, fuel oil @ 8 cents and gas @ 10 cents per gallon. The fuel to be used in driving ore concentrates in a roasting oven.

I would like to have, especially on the fuel oil, the hidden operating

cost, such as preheaters, blowers, etc., along with the losses of Btu through efficiency.

My problem is that the Anaconda Copper Mining Co. which is just opening up a plant in my field want to use propane gas instead of bunker C fuel, but I have not been able to get any figures that will show where they can use gas cheaply enough to compare with fuel oil.

O.J.R.

Most combustion engineers consider 1 cent per gallon as the minimum cost per gallon of fuel oil for handling, heating, pumping, atomization, burner and handling equipment maintenance. Many consider this figure much too low and think the cost is 1½ cents or more.

Propane handling cost is very low compared to heavy fuel oil as there is little if any burner maintenance, pumping only when transferring the fuel from the transport to storage, and a small amount of heat for vaporization. One-fourth cent per gallon may be considered adequate to cover these costs.

The following is a table of comparative data and costs for propane and heavy fuel oil:

	Propane	Fuel Oil
Heating value per gallon, Btu	92,000	150,000
Cost per gallon delivered	\$.10	\$.08
Cost of handling		
(see above)	\$.0025	\$.01
Cost per gallon, burned.	\$.1025	\$.09
Loss in delivered heat*		15,000

Gallons to deliver			
1,000,000 Btu	.....	10.86	7.4
Cost of fuel per			
1,000,000 Btu delivered	.....	\$1.112	
Cost of propane per gallon delivered, to deliver equivalent amount of heat through burner	.....	\$0.0615	

Note: If $1\frac{1}{2}$ cents is considered the cost of handling and burning oil, then equivalent cost of propane may be \$.0647.

*Loss in delivered heat because of inefficiency of burning is quite variable. Relatively low temperature combustion chambers, such as air heaters, are not always ideal for burning heavy oil. Poor atomization in these low temperature chambers often causes considerable loss of heat with carbon carry over to the product or out the stack. Gas combustion, not depending on atomization is complete as long as adequate air is available. Control of temperature is simple, more responsive and easier with gas.—Ed.

OREGON

We have the prospect of converting a 1949 Oldsmobile 76 to dual gasoline-propane carburetion. The car will be operated mostly on propane but there is a possibility that on short occasions that it will operate on gasoline.

From your Power Manual we understand that this particular head can be planed if the individual head will stand it and that this head can be planed .090 inches. We are not sure whether planing a head this much would allow a motor to operate properly on Ethyl gasoline.

Can you give us some further information regarding raising the compression on this particular motor to get the most out of the propane but still enable us to run on Ethyl gas fairly well. Also, can this particular manifold be cooled with a plate?

R.L.B.

We know of a number of Oldsmobile "76" engines which have been planed .090 inches and are operating satisfactorily on

propane with occasional changes to Ethyl gasoline.

Concerning cooling the manifold, this may be done for any engine in which the intake and exhaust sections are cast separately and bolted together on a gasket.—Ed.

FLORIDA

Ref. your *Handbook, Butane-Propane Gases*, Third Edition, page 21 of the combined tables 1 and 2—physical constants of hydrocarbons, headed as follows:

Specific Heat At		Propane	N-Butane
Atmospheric Pressure @ 60° F	C ₃ H ₈	C ₄ H ₁₀	
Cp Liquid—Btu per lb. per ° F	.....	.55@32F	
Cp Vapor—Btu per lb. per ° F	0.390	0.396	
Cv Vapor—Btu per lb. per ° F	0.346	0.363	
Cp Vapor—Btu per lb. per ° F	1.128	1.090	

I only used the propane and butane values because I am only interested in the two gases at present. But please note Cp vapor of butane is .396. The third line below this you give another value of Cp vapor of butane as 1.090. Similar discrepancies also exist for propane. What is the nomenclature Cp and Cv? I can't find it in your Handbook and two different values are given in each case for Cp vapor. If Cp means constant pressure, then one of the values of Cp is wrong.

B.D.

The information given in the table to which you refer is correct to the best of our knowledge. It is in agreement with similar data published by the Natural Gasoline Assn. of America and others.

We believe you have misinterpreted the descriptive heading preceding the figures 1.128 and 1.090. These are not values for the symbol Cp but are values for the ratio

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Cp/Cv. The symbol Cp is the specific heat at constant pressure, while Cv is the specific heat at constant volume. The ratio Cp/Cv enters directly into many thermodynamic formulas; therefore, it was included in these tables.

(Note: Cp/Cv for propane = .390/.346 = 1.128).—Ed.

ITALY

We are studying a town plant for L. P. gas distribution. A peculiar aspect of the problem concerns the set-up of piping diameters.

The "Bottled Gas Manual" and "Handbook Butane-Propane Gases" refers to Dr. Pole's formula for just 1" to 2" diameters at low pressures. Do you have any article about with diagrams and charts for the determination of piping diameters for town plants?

In BUTANE-PROPANE News last year there was an interpretation of "legal" settings of cylinders and tanks according to NBFU 58. Would it be possible to have copy of it together with required minimum settings for L. P. gas tanks close to gasoline storages and tanks containers?

In addition to that, what type of wall or fence is it usually adopted in the States to limit an L. P. gas plant with containers?

I.A.B.

The 1951 edition of the Handbook Butane-Propane Gases contains tables (page 316) for sizing low pressure gas lines up to 2 in. standard steel pipe size.

Also, on page 317 of the Handbook, is a table for sizing high pressure gas lines. This table, however, is designed for use in relatively simple and short high pressure lines.

The Gas Engineer's Handbook, published by the McGraw Hill Book Co., 330 West 42nd St., New York City, has extensive data and tables for sizing gas transmission, distribution, and house service piping.

Generally, gasoline tanks are placed underground in this country and no special

distances are specified between L. P. gas and gasoline or light oil tanks. The only restriction is to avoid placing the L. P. gas vessels over the gasoline tanks. Chain-link type fences six to eight feet high are usually recommended to enclose the L. P. gas plant and containers. Although large storage should be at least 50 ft. from property lines and buildings, the fence need be only 5 ft. from the containers.—Ed.

OREGON

There is a considerable amount of ceramic work in this area and all of the kilns are fired with electricity.

We understand that in the Los Angeles area there are gas kilns of all sizes from one cubic foot up that could be used for this work. What information you have would be appreciated.

W.J.K.

Yes, nearly all ceramic kilns in the Los Angeles area, and most of the U. S., are gas-fired.—Ed.

TEXAS

We are attaching order and our purchase order for eight copies of your BUTANE-PROPANE Power Manual.

We would also like to receive from you 300 of the Manual's announcement sheets and order blanks. We have approximately 300 dealers under this zone and we would like to send these sheets to the dealers recommending they purchase your Power Manual. The use of LPG is constantly increasing and it is our opinion that without a reference manual such as this one, the average dealer is at a disadvantage in servicing or installing this equipment.

GENERAL MOTORS CORP.
GMC Truck & Coach Division
H. E. Pettegrew
Zone Fleet Sales Manager





COMMENT

SURVEYS of the LPG industry are developing some valuable information for dealers and manufacturers.

Elsewhere in this issue John F. Lynch, president of the Natural Gasoline Assn. of America, comments upon one survey which sets out the sales potential for L. P. gas, based upon the "gallons of domestic consumption of LPG *per capita of rural population*" or, said differently, the total amount of LPG shipped into a state divided by the number of people in the rural areas of that state.

However, the material presented is an over-simplification of the subject and, possibly, does not reveal as clear a picture of the situation as other approaches may do.

The rural population is only one factor of the market for LPG. Small-town and suburban populations are also responsible for a large portion of the LPG domestic consumption, supplied largely by dealers but many times by utilities who serve consumers with LPG in fringe areas.

Other factors that enter into the picture:

The method of distribution of LPG in the area (bulk or in cylinders) affects the result.

So also, does the cost of LPG as compared with other fuels.

Is natural gas available?

What is the income per capita in the state, or among the potential consumers?

How far is the area from LPG production or large storage facilities?

What is the extent of mechanization on the farms?

What is the ratio of rural to other population in the state?

Therefore, it may be seen that the potential in one state may vary greatly from that of another having approximately the same population, because conditions peculiar to the one do not apply to the second.

But if you take the rural and small town population of a state and compare it with the actual, average-per-family volume of current sales of LPG and extend those figures to the rest who do not use our fuel, you may have a better indication of the unsold market.

The accompanying table shows comparison of fuel consumption *per customer of bulk plants* as determined by a survey made by BUTANE-PROPANE News for the National LP Gas Promotion Committee in February of this year, and the total for the same states as shown by the Lynch report which compares total rural population (not households or LPG consum-

TWO SURVEYS

State	Lynch Report	BPN Survey
Alabama	20	730
California	46	620
Louisiana	82	600
Massachusetts	46	125
Michigan	19	310
Minnesota	37	235
Mississippi	31	1190
Nevada	46	1100
New York	21	79
Ohio	12	375
Oklahoma	75	1140
Pennsylvania	11	310
Rhode Island	78	...
Tennessee	11	830
Texas	82	1570
Utah	10	...
Vermont	24	...
Virginia	12	140
Washington	10	710
West Virginia	4	...
Wyoming	107	1010

ers) with total marketed production.

Alabama, for instance, has a consumption of but 20 gallons per year per capita on the basis of the entire rural population, but *present users* consume an average of 730 gals. per family.

The average consumed by existing users is an excellent standard to assume for those still outside the LPG fold. Having these facts, the dealer can with fair accuracy set his sights on a potential that is attainable, for the distance from supply, existing storage facilities, local price schedules, the acceptance of the fuel for farm and other uses, all probably apply in a general way to any given state.

BUTANE-PROPANE News has taken the initiative in building factual surveys in this industry. As the results

of these and other surveys continue and show up additional, real conditions, the time will soon come when dealers and producers and manufacturers will be able to plan more intelligently and more accurately on the potential business ahead.

Your could work five days a week for the next million years and not make up for the time lost as a result of 1951's work accidents. There were 280,000,000 man-days of lost labor, says the National Safety Council. And the dollar loss was \$2,650,000,000!

Property damage can be repaired after a fashion, but personal injury and loss of reputation from carelessness takes cruel toll.

We are going to feel a little lost come January, when every editorial page of BUTANE-PROPANE News will require twice as much copy as the present size.

We only hope it will be twice as informative and interesting.

The 7 x 10 in. page of the future will provide a better opportunity to display photographs and drawings and tables; it will make for easier reading and will permit better display of technical material that every dealer can use in his business.

At first, the book may seem a little strange to readers who have been subscribers to the present pocket-size edition for more than 13 years, and it will seem strange to us too, but we are confident you will like it.

Incidentally, the January issue is going to have a review of what's happened in the industry for the last 20 years. You'll want to read this—and preserve it!

By Ed



TRACTORS have contributed more to the cause of civilization, and to the comforts of modern living, than meets the casual eye. Charles F. Kettering reminds us that horses eat so much feed, and require so much land to produce that feed, that every time a horse is permanently removed from the land, six more people can be fed.

If you want to go on from there, a number of other interesting conclusions can be drawn. For example, in the good old days—may they never return—from one-fourth to one-half of the labor on farms was expended in supporting and caring for horses, so the work of the horses could support the farmers' families. Replacing the horse with the tractor released a great deal of land for the production of income crops, and enabled each farmer to cultivate so many more acres that half the farm population could move to town.

A well-used tractor of the common or farm variety generally burns gasoline—quite a lot of gasoline. Enough to operate about four automobiles. Our raw materials for making gasoline are gradually being used up, and they do not reproduce. Every tractor that can be made to do its season's work on some other fuel will enable four more people to drive their cars for a year, or will stretch out the world's supply of gasoline for four more car-years.

More pertinent to the interests of the readers of this magazine, every

tractor that can be made to operate on propane increases some dealer's sale of fuel by the equivalent of about 10 average range-water heater-refrigerator installations and, in addition, makes it possible for him to supply three or four more farm families the comfort and convenience of gas heat in the winter.

Long live the tractor, and may it always burn propane!

A natural gas main burst near the center of Austin, Minn., last August. In response to the call for help, the Hydroflame Gas Co. (propane distributor) dispatched an emergency utility crew consisting of employees Don Bluhm, Dave Cory, Lloyd Cummings, Stan Peterson, Ed Johnson, and Bill Steinke. Other crews came from towns as far away as Faribault.

The utility crews supervised the closing of every gas valve in Austin homes, and following the repairs to the main, they supervised the lighting of pilot lights in all of the gas appliances in the community.

That's public service among the mains, from beyond the mains.

Bob Short, who heads the Red Devil Butane Gas Co. down in Franklin, Kentucky, is tired. Not tired of doing the things that accomplish some good, but just weary of the endless sales talk that is necessary to wear down prospective customers'

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By Ed

PANE Now
DECEMBER — 1952

objections that L. P. gas costs more than coal.

Being a man of few words on that subject, Bob just says, "Sure it is more expensive. But it's awfully nice—if you can afford it." Period.

You'd be surprised how the Red Devil business has grown on those few words. People down in Kentucky spend real money to keep from being regarded as cheap skates. They may not be different from the folks in other parts of the country. Who knows? Maybe that's why so many people buy automobiles that they cannot afford.

The useful life of a junked underground butane or propane tank does not necessarily end when it is dug out of the ground and hauled back to the distributor's plant. It may be used for other purposes.

In any cattle country, which is almost everywhere, the tank may be



Underground tanks, when junked, can provide further usefulness by serving as stock watering troughs. J. H. Winton, Beaumont, Texas, inspects one of his jobs.

split in half with a cutting torch (using propane, of course) and the two halves sold for stock watering troughs.

The Winton Automatic Gas Co., Beaumont, Texas, has recently replaced a large number of underground butane tanks with aboveground propane tanks, and has developed a nice sideline salvage operation in producing these stock troughs.

Last week an order for 12 copies of the BUTANE-PROPANE POWER MANUAL was sent over to the editorial office from the book department. That's not unusual. We have received a number of orders that were larger than that. But the letter that came with this order contained an idea which we think is worth passing along.

The purchaser said, "Each year we try to give our larger customers, and our more important prospects, a Christmas remembrance that is out of the ordinary run of Christmas merchandise, and which will have good will value for us for a long time. For our fleet customers and prospects we can think of nothing better than the Power Manual."

"P.S. Please add seven copies to this order. Our company vehicles are all on propane, and we want to give individual copies to each of the drivers, and to the shop man. We would appreciate it if these copies could be autographed by the author."

Confidentially, the author has a big fountain pen and lots of ink, and he will be glad to autograph any books ordered for holiday distribution, if the request is noted on the order.

Carl Abel

BUTANE-PROPANE News

Problems of Retail Marketing

How Pioneer Wholesaler Organized New Selling Experiment

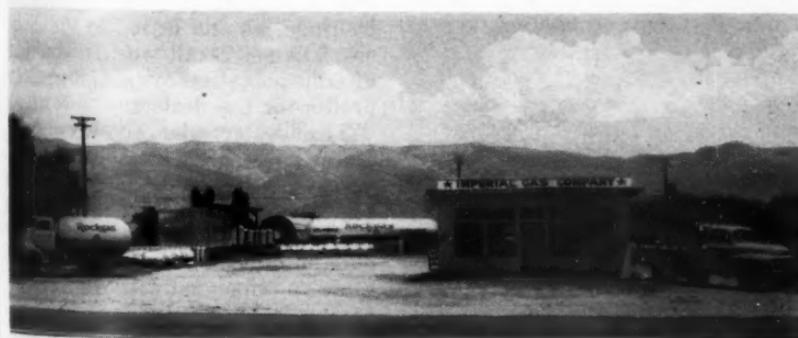
IMPERIAL GAS CO., established in 1924 by A. N. Kerr as the first liquefied petroleum gas distributor on the Pacific Coast, whose "Rockgas" has been supplied on a wholesale basis to dealers from Mexico to Canada, and from East Texas to the Philippine Islands, has within the past few months branched out into retail operation.

This is a major change in the company's operating program, as it had done no retailing since the first few months of the company's existence, when it had been neces-

By CARL ABELL

sary to make a few customer installations to demonstrate the desirability of the product as a means of interesting prospective dealers in entering the business.

Eight company-owned retail branches are now marketing Rockgas direct to consumers, in areas surrounding the following cities in California: Sacramento, Vacaville, Sunnyvale, Palmdale, Bishop, Los Angeles (Malibu area), and Hemet,



Storage yard, bottle house, 10,000-gal. storage tank, and office and salesroom, at Bishop, Calif., plant.

and at Yuma, Ariz. These operations are under the direction of Philip Koch, vice president, and Mrs. Lorna Lennox, secretary, of the Imperial Gas Co.

These retail operations have all been acquired by buying out former dealers of the company who, for one reason or another, wished to sell. The purchases have been made primarily to insure continuity of marketing the company's product in these important areas. Recent competitive developments, and changes in the industry brought about by the broadening of its field, have made this change of operating plan seem advisable, just as changing conditions over the previous years have brought about a number of changes in the company's wholesale methods.

In the original marketing plan, the company's dealers bought their own cylinders, and Imperial Gas then exchanged filled bottles for empties. Because many installed cylinders were tied up on inactive accounts, this eventually led to top-heavy inventories for the dealers.



gal. capacity, carry standard equipment, Rockgas bulk delivery trucks are 1600-gal. capacity, carry standard equipment, and serve as traveling billboards, with signs visible from every direction.

As the total volume of business grew, substantial economies were accomplished by Imperial's ownership of the cylinders, which were then leased to the dealers on a plan whereby turnover was accelerated, and a substantially larger number of customers could be served with the same number of cylinders.

Filled Cylinders From Transports

Later, in order to bring the benefits of reduced transportation costs to the small dealers, Imperial Gas developed transport trucks from which a dealer's cylinders could be filled. These transports were equipped with scales and engine-driven pumps, so filling could proceed without loss of time, as soon as the transport reached the dealer's dock.

As operations expanded, and transportation in greater volume and to greater distances became necessary, a program of installing bulk plants and cylinder filling facilities at the larger dealer locations was put into effect. In some cases these plants were put in by dealers, and at others, they were installed by Imperial, and leased to the dealers. The net result was a reduction of transportation costs, and greater profits for the dealers.

The dealer plants where bulk storage had been installed were in position to provide bulk delivery service to accounts providing sufficient volume to justify customer bulk storage facilities, and this became an important activity, in some of the larger dealerships far outpacing the original bottle delivery service.

The long period over which these



Operating personnel and automotive equipment at Imperial Gas Co. Vacaville, Calif., plant. Left to right: Robert Meyer, Ronald Beeland, Donald Wheeler. All employees wear standard uniforms while on duty.

bulk storage plants were installed, and the multiplicity of ownership, resulted in wide variations in plant equipment and in delivery vehicles. As these dealer plants have been bought up by the company, the lack of standardization of equipment has shown up as a service problem.

The future program includes replacing such vital units as pumps, compressors and trucks, when the need for replacement arises, with standardized equipment, so a minimum of reserve units may be maintained in working order, and substituted for the corresponding item in any plant, when the need for overhaul arises.

All new bulk delivery trucks now being purchased are built on Chevrolet 2-ton chassis, with 2-speed rear axles, and 1600-gallon tanks. Paint specifications are uniform, the background color being cream, with the product name, "Rockgas," displayed in contrasting red letters, in the company's standard style, on both sides and on the front and rear. This ties in with the paint

design at all of the plants, to provide maximum advertising value. The name, address, and telephone number of the plant to which it is assigned appears on both cab doors of the trucks.

Since the company's business was exclusively bottled gas for the first few years of its existence, the retail branches still retain a large volume of cylinder business. Flat-racks are necessary to handle the cylinder deliveries. These same trucks double as service and installation trucks for bulk systems and appliances. To facilitate handling of heavy bulk tanks, each of these trucks is equipped with a hydraulically operated crane, the power for which is taken from the truck transmission.

The problem of providing operating staffs for the expanding retail organization has not presented serious difficulties. When a new branch is acquired, the dealer's previous employees are retained if they are willing to stay. Managers for the first branches were selected from

the Imperial Gas Co. wholesale staff. A standardized operating system was set up immediately, and at the same time an employe training program was instituted, with the double purpose of familiarizing the entire staff with the company's procedures, and upgrading employes for future positions as branch managers as the need might develop.

Managers for the more recently acquired branches have all come up through the ranks. The managers know that they are rated on their ability to train competent subordinates, and the other employes are kept reminded that their opportunity for advancement depends on their performance and increased capacity in their current assignments. This keeps the entire organization in competition, with excellent morale and rapid development of individuals.

Branch operations are simplified through the use of a central ac-

counting, credit, and collection system, which is located at the Imperial Gas Co. head office in Los Angeles. Drivers are trained to make a tactful suggestion of immediate payment for gas upon completion of the delivery, instead of taking the short and easy way of asking the customer to sign the ticket.

Daily reports of cash payment are forwarded to the central office along with the charge tickets. The local staff members have nothing further to do with accounting, and are not called on for collection work unless accounts become overdue, in which case the driver calling regularly on the account handles the collection.

The management points out, also, that the driver, being acquainted with the customer, and knowing something of his personal peculiarities, is in better position to handle the matter diplomatically than any stranger who might be assigned to



Taking delivery of three, new 1600-gal. standardized trucks is Mervell Jensen, superintendent, Imperial Gas Co., Huntington Beach; then come Preston Grace, president, White River Distributors, Inc., White River mechanic; Jack C. Geiger, Imperial branch manager, Malibu; Fred Higgins, branch manager, Hemet; White River mechanic.

the task. Under this system, outstanding accounts have been held to a satisfactory minimum, and the collection experience has contributed to the training of the employees.

The central management's viewpoint is that the company is primarily in the gas business, and only secondarily interested in the sale of utilization equipment. Sales training efforts and programs to date have emphasized the sale of gas service. As a matter of convenience to customers, modest showroom facilities are maintained at each branch.

Branch managers are expected to maintain friendly and cooperative relations with the local appliance dealers. Each branch staff includes at least one well trained installation and service man and his services are available in connection with the installation, testing, and any necessary re-calibration of any appliances sold by dealers, for which Imperial has a chance to supply the gas.

Incentive Plan Being Tried

An incentive system is under test in certain of the branches, aimed at securing the highest possible degree of cooperation and team work. This is basically a commission paid to the branch, covering the entire sales volume. Instead of awarding the commission individually, it is divided equally among the entire staff, including the girl who does the office work. The theory behind this plan is that it will induce all staff members to help each other, and that the branch manager will not need to drive any individual.

If any employe is falling down

badly in sales effort, or in helping others to sell, the influence of the other staff members, whose earnings are all affected, will be brought to bear, and it is felt that this will produce better results, with less friction, than close supervision by the branch manager. Results have been excellent.

Branch Managers Discuss Problems

Meetings of all branch managers are held at the headquarters office at approximately six-week intervals. These are generally divided into three periods; some problem common to all branches, such as maintenance of automotive equipment, LPG carburetion, service of specific appliances, etc., is covered by an outside authority; the management discusses any policy matters which may need attention; the branch managers discuss the problems which they have encountered, offering their own solutions if they have been able to find them, and considering the suggestions of others who have gone through similar experiences.

The Imperial Gas Co. officials consider that they have taken an important step in strengthening their business. While they expect to continue primarily as suppliers to independent dealers, they now have the means of filling any gap in distribution which may occur due to voluntary withdrawal or loss of existing dealers. They feel, also, that their experience in operating retail branches will enable them to render better and more understanding service to the independent dealers they continue to serve.

A Town Plant in Wales

The "Whitland Butane Experiment" is the first of its kind in Britain. Based upon American practices, it sets pattern for other communities.

By Special British Correspondent

THE following brief remarks may interest North Americans regarding what is a novel experiment in Great Britain on the use of butane-propane mixtures for a central gas works replacing an obsolete coal gas type. While this may sound like a small operation to many Americans, it will be appreciated that to a conservative and insular people living on top of a billion tons of coal and quite devoid of commercial oil and natural gas deposits — to the layman in England it is all very strange.

Introduction

Whitland is a small town of about 1700 people near the southwestern tip of Wales, a little northeast of the seaside resort of Tenby and only a few miles east of the naval base at Pembroke and Milford Haven. For a century or so coal has always been a very cheap commodity indeed, and it is only over the last few decades that considerations of its cost and economic use have been significant. After

nationalization a number of small gas works are being eliminated as coal-gas grids are formed. At the same time many cases occur of the more remote gas works which needs to be replaced by a new one, but in the present very tight economic situation, capital expenditure, steel and coal availability are not inconsiderable difficulties.

Out of a background briefly sketched above, projects such as the use of butane are being tried. While this article is being written several more plants are on order from France and the United States and royalty negotiations are proceeding concerning the possibility of building American type equipment in England to save dollars, although the precise location of the succeeding plants has not been disclosed.

Readers will appreciate that with a government monopoly one has to rely to some extent on information hand-outs, and detailed discussion of the reasons for certain decisions and future plans are no more forth-

coming than from a commercial manufacturer developing a new and secret process.

On Jan. 22, 1952, the Whitland, Carmarthenshire coal gas plant ceased to be the source of fuel for its consumers and was replaced by a butane-air mixture, intended to be permanent — accidents and little troubles permitting. The butane mentioned here will refer to a liquid which probably contains 12% propane and the vapor from this butane, when mixed with about 3½ times its volume of air, has a specific gravity of 1.22 referred to air.

The compressed, liquefied gas is supplied by the Anglo-Iranian Oil Co., from a nearby refinery at Llandarcy, and mixed with air at the gas works to give a Wobbe index* close to the previous coal gas supply, but with a calorific value of about 730 Btu. Readers

will appreciate that it is not possible to put such a butane-air mixture through existing gas mains at the same pressure, density and calorific value as the previous coal gas. The above method certainly seems a reasonable working compromise.

Equipment

Liquid butane is stored at high pressure on the Whitland works, as delivered from the oil refinery. Thereafter, either of two air-gas

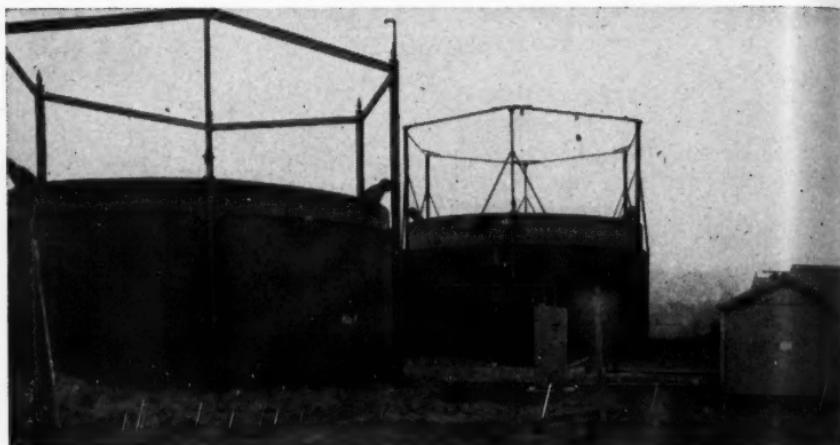
*Wobbe Index: Quite similar to Noyes formula used in United States, except that Noyes uses a constant "C" to vary the ratio for various mixtures of butane-air. In general the "C" factor remains at or near 1.0 for industrial burners, but for domestic appliances it varies upwards from 1.0.

CV

However the $\sqrt{\frac{\text{CV}}{\text{density}}}$ ratio for L.P. gas air ratio must be held quite accurate in industrial furnaces where the furnace charge is in contact with the products of combustion and furnace atmosphere has an effect on the product.



View of liquid butane storage section at town plant in Whitland, Wales.



The American-made "Gasair" mixing unit and old gas holders at Whitland.

mixing plants may be used to produce the consumers mixture, which is stored up to 20,000 cu. ft. for use.

Mallet equipment is primarily used, as imported from France. Intermittently, to gain experience and so as to be able to compare working efficiencies, an American "Gasair" type plant also is being operated. With the French equipment a blower is used for both the air and the butane, with a proportioning device to arrange 3½ parts of air to one of gas. In cold weather it is intended to deliberately warm the storage tanks which feed the Mallet plant with straight butane to ensure ample volatilization.

The venturi type of equipment from the U.S.A. aspirates the appropriate quantity of air, the liquid butane again being heated, if very cold, with straight butane itself, burning in air, of course. This

"Gasair" plant stands in the open, while the Mallet has a small building devoted to it. This apparent duplication implied no serious fears regarding the equipment or its maintenance; merely, as stated above, a desire to obtain actual operating experience as quickly as possible, determine any limitations and which plant is suited best to given circumstances. While some secondary orders have already been given, current experience will guide the tertiary orders, so to speak. One might stress that climate conditions, here, except for persistent dampness, are far less rigorous than for most of America.

The gas holders used at Whitland are 11,000 and 9,000-cubic foot low-pressure holders supplying the usual service mains at normal pressures, say four to six inches water gauge.

Consumer Changes

The Wobbe index remains the same as for coal gas, but the calorific value is increased about 50% above the 500 Btu's which is almost universal for coal gas in Britain.

Thus, by and large, the consumers will use existing household apparatus, indeed, they would refuse to buy new in any case. Usual individual adjustments have been made at each house to the consumers' cookers, etc., and time and effort have been spent on the dry meters. The main worry is whether butane-air may prove to be corrosive to the meter cases and other metal parts, and the effect the butane may have on the leather diaphragms. A variety of dressings have been

tried on the diaphragms, and a proportion of meters with synthetic rubber diaphragms have been installed to give maximum data on meter performance and resistance to any possible butane vapor attack.

If one is permitted a passing aside, one may say a whole range of new modern designs of die cast meters are coming into heavy production in England, seeking to replace tried but old production methods. It has proved very hard to develop a suitable physical material to replace the leathers of diaphragms, the raw material being wholly imported from the Middle East.

This new project is the result of investigations and experimental work carried out by the Wales Gas



View of the old gas works when coal was used.

Board and the North Thames Gas Board laboratory in Fulham, London.

Summary

Costs are not easy to estimate, of course, but the installation must be extremely cheap compared with a new coal gas works — even neglecting factors such as steel and capital shortage, manpower lacks and time delays on large projects over here. Operation is very much simpler, requires much less time and manpower. For example three hours operation of the air-gas mixing plant equals 18 of the previous coal retorts.

The 240 consumers include no large commercial concerns on their circuit — probably a fish and chip shop being one of the biggest. In the past, 540 tons of coal have been used a year, and it will be replaced by 70 tons of butane, which is not scarce in England, an oil refinery by-product. The cost to consumer should be slightly less. No large-scale town butane-air plants are projected to date but numerous similar small ones are in outlying districts, far removed from present or future gas grids.

Perhaps industrial firms may find butane to their taste in metal heat-treatment, foundry heating or special furnaces. Certainly this little project has stirred the imagination and aroused a good deal of interest and publicity in Great Britain.

The "Gasair" mixers are supplied from Drake & Townsend, an international corporation of New York City, and two more sets are

being forwarded from San Francisco to be built in England under license, it is expected.

Butane is widely used in England in caravans and house trailers under the name "Calor" gas, for which 300,000 gas cylinders are said to be in use. The trailer industry is expanding as fast over here as in America.

Country Bottled Gas Dealer Invades New York for Business

County-Wide Gas Co., Mobilflame bottled gas dealer, White Plains, N. Y., serving the rural areas of Westchester county, has struck gold on Manhattan Island and in the Bronx. The company serves a number of garages and scrap metal yards with propane for cutting fuel, and has a large number of temporary heating installations in the "field offices" of construction projects.

This is not just an incidental market. A full load of cylinders is dispatched to the big city every few days.

Suburban Propane Acquires New Branch At Mahwah

Suburban Propane Gas Corp., Whippny, N.J., which will serve the area formerly serviced by the company's Haskell plant and the former County Home Gas Service, which Suburban acquired last year. This area includes Bergen, Passaic, Sussex and Morris counties in New Jersey and Rockland county and part of Orange county in New York.

The 8000-sq. ft. plant was opened by Mark Anton, president of Suburban, which has 60 plants in 14 states.

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Accident Causes: Ignorance, Carelessness The Cure Is Education

By GEORGE WEBSTER

Pyrofax Gas Co., New York City

In a paper entitled "An Ounce of Prevention," illustrated by slides, at the Northeastern LPGA meeting in Atlantic City Oct. 30.

"An ounce of prevention is worth a pound of cure"—it's an old, hackneyed, time-worn saying but it's certainly applicable to the business we're in. Do a good job, make your installations carefully, neatly, safely, perform prompt and correct service, and success is bound to come your way. Fall down on the job and the consequences are not pleasant to contemplate.

Every once in a while individuals will tell me they have electric ranges because they're afraid of gas and they feel that electric cooking is safer.

Why are some people afraid of gas? I've thought about this question quite a bit. Statistically there's no reason for it. I'm pretty sure that they're afraid because they've heard of, and read about, and seen pictures of fires and accidents where gas—and not necessarily L. P. gas—was involved.

I'm not a salesman, at least in the usual sense. So, I won't launch into a technical discussion of the deficiencies of electric cooking. I just want to point out briefly, though, the hazards a person can run into when using an electric range. Apparently people don't think about this side of the question. It is evident from Fig. 1.

A FEW OF THE HAZARDS OF ELECTRIC COOKING

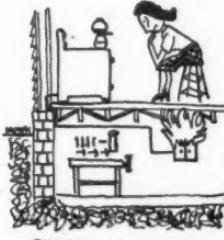
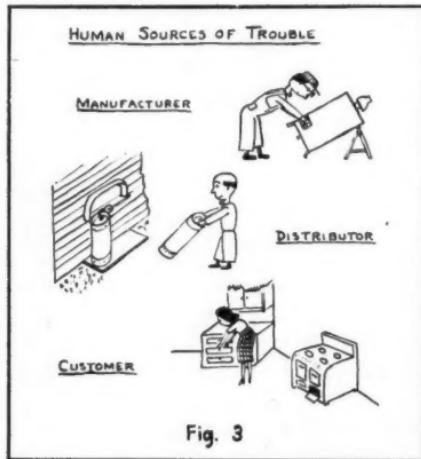


Fig. 1



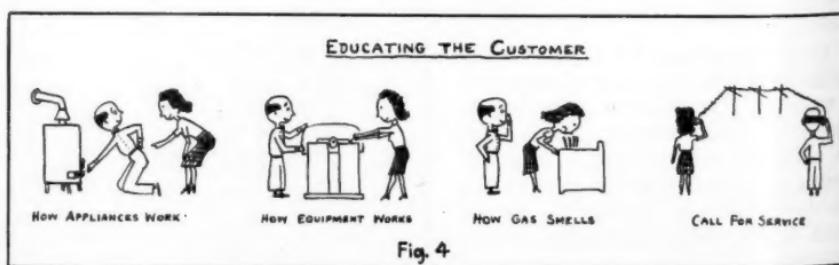
We have hazards in the gas business too. I think Fig. 2 is a fair breakdown of what general sources of trouble can be.

I'll leave it to the electric boys to clean up their own backyard. But let us see what we, ourselves, can do about our own problems and apply that "ounce of prevention." Take almost any accident or fire you've ever heard of and ask yourself what was the cause. It could be attributed fundamentally to one of the three people shown in Fig. 3.

Not very many accidents nowadays happen because of what the manufacturer does or doesn't do. I think we'll have to admit that our appliances and our equipment are well designed, engineered and manufactured and they don't fail in service of their own accord.

That leaves the installer and the customer. The accidents attributable to them are due either to (1) a lack of knowledge, or (2) failure to think. Both of these shortcomings can be corrected and it's up to us to do something about them. It's simply a case of educating people and then impressing upon them the importance of applying what they know.

Fig. 4 shows that the job of educating the customer is pretty easy.



**A DISTRIBUTOR ORGANIZATION SHOULD
KNOW ALL ABOUT GAS, EQUIPMENT, AND
APPLIANCES: LEARN FROM:**

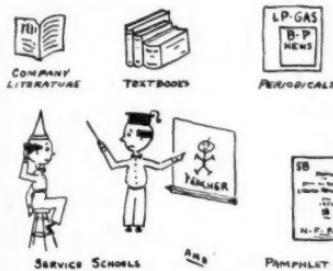
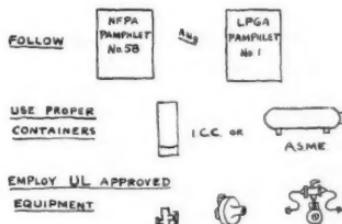


Fig. 5

PROPER INSTALLATION



TEST COMPLETED JOB FOR LEAKS

Fig. 6

RESPOND TO SERVICE CALLS

PROMPTLY

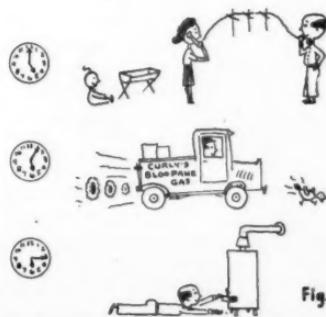


Fig. 7

Educating a distributor should prove just as easy. Knowing what to do and then doing it is all that's necessary. How to learn: (Fig. 5); The way to apply your knowledge: (Fig. 6); And when the installation is finished and in use, then respond to service calls promptly, like Fig. 7 tells you to do.

CHARACTERISTICS OF LP-GAS

1. RELATED CHEMICALLY AND PHYSICALLY TO NATURAL GAS AND GASOLINE.
2. CHANGES EASILY FROM A LIQUID TO A GAS AND BACK AGAIN.
3. BURNS WELL AND GIVES OFF A LARGE AMOUNT OF HEAT.
4. HAS A NARROW FLAMMABLE RANGE.
5. NEEDS A LOT OF AIR TO BURN.
6. IS HEAVIER THAN AIR, YET MIXES WITH AIR QUITE RAPIDLY.
7. AS A LIQUID IT HAS A HIGH COEFFICIENT OF THERMAL EXPANSION.
8. HAS NO DISTINCT ODOR ITSELF - AN ODORANT IS ADDED TO IT.
9. IS NOT TOXIC.

Fig. 8

RANGE OF FLAMMABILITY

PROPANE

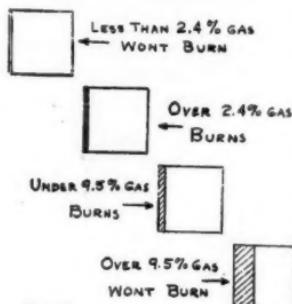


Fig. 9

If everyone in the L. P. gas business would follow the simple, common sense steps outlined, we wouldn't have many worries. And we wouldn't hear people say they were afraid of gas when there is no reason to be.

Have you ever talked with your fire chiefs about L. P. gas and how you run your business?

Perhaps Fig. 8, illustrating nine

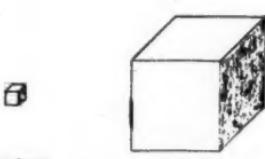
characteristics of L. P. gas will serve as a guide for your discussions.

Firemen are usually interested in flammable ranges of materials, portrayed in Fig. 9.

You can also point out the liquid to volume relationship as shown in Fig. 10.

And its expansion characteristics in the liquid phase. (Fig. 11).

VOLUME RELATIONSHIP



A GIVEN VOLUME OF LIQUID WILL OCCUPY ABOUT 250 TIMES AS MUCH SPACE WHEN TURNED INTO VAPOR.

Fig. 10

COEFFICIENT OF LIQUID EXPANSION

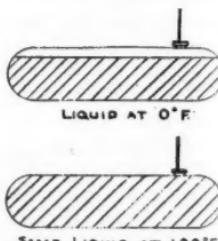


Fig. 11

LP-GAS HAS NO ODOR

SO ETHYL MERCAPTAN IS
ADDED TO LP-GAS AND
MAKES IT SMELL ABOUT
MIDWAY BETWEEN:



A ROTTEN CABBAGE AND A DEAD RAT

Fig. 12

TO PREVENT FIRE OR EXPLOSION
WITH LP-GAS

1. KEEP GAS FROM ESCAPING

2. KEEP IGNITION SOURCES
AWAY FROM GAS

Fig. 13

If they ask you how it smells, Fig. 12 suggests an answer.

Lastly, be sure to tell them how to fight a fire. There are two best ways. (Fig. 13).

In conducting a business—any kind of a business—there's a lot of emphasis placed on gross sales, cost of goods, expenses, taxes. A person has to know how he's doing, whether he's making a profit or a loss, if he wants to stay in business.

However, I have never seen anyone measure, or evaluate, or put a dollars-and-cents price tag on this "using your head—following safe practices—preventing fires and accidents" end of our businesses. Yet I know you will agree that it's a very vital part of our own livelihoods and in many respects it can easily mean the difference between our success and failure.

Prevention, as related to the L. P. gas business, is about the cheapest—call it "factor"—that one can apply. It's practically free. It's attained merely by the application of a little thinking and a little doing.

Cure—that's tough and expensive, and sometimes it can't even be done.

One thing I do want to impress upon you. If I'm an L. P. gas distributor, if I don't do my job properly, and one of my customers has a serious accident, I will not be the only one who loses. Our whole industry will suffer in varying degrees. And conversely, any fires or accidents which you happen to have will indirectly cause me a loss of business, and mean less money in my pocket. So we're in this thing together.

It's up to all of us to work together, to build the L. P. gas industry's reputation for safety up to the high level where it belongs. The effort will cost us nothing in out-of-pocket expense; the results will be tangible profits. An ounce of prevention applied by each of us will be much more effective than thousands of pounds of cure can ever be.

"You Can't Lose"

... With a Market Like This!

- 23% of homes still cook with wood, coal, kerosene or gasoline.
- 42% don't have modern water heating.
- 38% of homes with central heating plants burn coal or wood.
- 23% of homes with space heaters burn coal or wood.

IN inviting me to speak today, your program chairman, Herb Bartholomew, assigned me the topic: "*You Can't Lose*." Herb must have been reading my mind. He couldn't have selected a more appropriate subject. It's right down the alley so far as my thinking is concerned in respect to the future of the L. P. gas business!

No, sir! You can't lose—if you get the future of this great business of ours in proper focus and perspective. You can't lose—if you pay sharp attention to the trends of the times and do what is necessary to cash in on the industry's terrific potential.

I wonder how many of you realize the magic of this L. P. gas business. I wonder how many are really conscious of the amazing growth which has catapulted it, in a dozen years or so, from a hodge-podge of little companies serving a few thousand customers to an up-and-coming, thriving industry



By LEE BRAND

Vice President, Empire Stove Co., Belleville, Ill., and Chairman, National Committee for LP-Gas Promotion

which now provides modern gas service for uncounted millions of homes and farms and thousands

upon thousands of commercial, industrial and transportation customers.

In the past five years alone, sales of L. P. gas in the United States have increased nearly two and a half times, reaching a total of 4 1/4 billion gallons in 1951. Very few industries can point to such growth and progress in so short a period!

In the East the rapid advance of L. P. gas service has been especially notable. The people in your rural, small town and suburban areas were quick to see the advantages of modern gas service. Today they insist on the same comforts and conveniences enjoyed by their city cousins.

Gas Pipe Lines Won't Hurt

To my mind, the recent extension of natural gas pipelines into the East should help rather than hinder the future growth of your business. As a result of the superiority of natural over manufactured gas and the aggressive promotion put behind the new fuel by the city utilities, the entire Eastern seaboard is becoming more gas conscious. Inasmuch as this utility advertising reaches out into your territory, you will get a lot of benefit from it. After all, whether it's natural gas or L. P. gas, the uses are practically the same and the farmer, small town or suburban resident who is "sold" on modern gas service will buy it from the available source of supply.

I'm not suggesting for a minute that you sit back and let the natural gas boys do your work for you. On the contrary, you and the

Mr. Brand has been working strenuously for more than two years on a plan to advance the LPG industry and combat electric competition through national advertising and publicity campaigns.

Sharing the costs of this tremendous effort have been dealers, distributors, manufacturers and producers. Almost \$1,000,000 has been expended so far.

Mr. Brand tells of the success of these cooperative efforts, and the job yet to do, in this paper, delivered before the Northeastern District of the LPGA in Atlantic City on Oct. 30, and digested by Butane-Propane News.—Editor.

entire L. P. gas industry are faced with a greater need for broadscale promotional efforts today than at any time in history.

I don't think I have to tell any of you that the lush days of easy order-taking are over. Electric competition is rough and getting rougher. Where we spend thousands in advertising, publicity and other promotion, the electric utilities and dealers and the REAs spend millions. They're doing their level best to make the "Go All-Electric" slogan stick. And they've made headway, too. A recent national survey by our L. P. gas Information Service revealed that a shocking percentage of folks in our markets now consider the words "electricity" and "modern" practically synonymous.

Nevertheless, I repeat what I said earlier. You can't lose if you pay attention to the trends of the times and do what is necessary to cash in on the industry's terrific potential.

What must we do—as individuals

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NE News

"YOU CAN'T LOSE"

There is a rich replacement market for appliances that have been in use 10 or more years.

There is the market for gas refrigerators, clothes dryers, incinerators, tractor fuel, brooders, irrigation pumping, stock tank heaters and drying equipment for hays, grains, fruit and nuts, cotton and tobacco.

als and as an industry—to insure a bright future for the L. P. gas business?

First, we must do more and better advertising—both nationally and locally. It will be a long time before our industry will be able to match our competition dollar for dollar, but we must pool our resources and spend much more than we do to get the message of L. P. gas superiority over to the public.

Second, we must use the publicity channels at our disposal—farm and shelter magazines, weekly and daily newspapers, radio and the business press—wisely and fully to keep L. P. gas in the news. We have hundreds of newsworthy stories to tell. They must be ferreted out and told to the public in an interesting fashion.

Third, we must sharpen up our selling techniques. Through proper training of our salesmen, servicemen and office employees and the adoption of realistic, forward-looking merchandising programs, we must do a more aggressive and convincing sales job.

Fourth, we must constantly build better public relations by

giving our customers good service and courteous treatment at all times and by bending every effort to eliminate fuel shortages and other inconveniences.

As I see it, these are the four major paths we must pursue to fully capitalize on the potential of our business. We must do these things to win out over our competition. We must do them to prosper, yes, even to survive, in the years ahead.

As you have probably guessed by now, I am going to talk today about the National L. P. Gas Promotional Program and point up the ways in which you and the industry can get the most of it.

Wise Planning In Advance

It is no mere coincidence that the four points I just mentioned are basic objectives of the National L. P. Gas Promotional Program. When our industry-wide effort was placed on the drafting table back in November, 1949, members of the National Committee for L. P. Gas Promotion, representing all segments of the industry and all sections of the country, wisely decided to concentrate on those factors. The national program, of course, can't do the job alone. It is the nucleus, the rallying point, for the entire industry in its crusade to hold the tremendous gains made in recent years and guarantee an even better future.

Is the promotional program doing the job cut out for it? We think it is. There have been temporary setbacks and problems to overcome, but on the whole, our

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progress has been continuous and substantial from the very start to the present.

Although our first advertising appeared only slightly over two years ago, we are now nearing the completion of our seventh round of insertions in 50 national, regional and state magazines with a combined circulation of 34,500,000. We will soon release copy for our eighth round in the same publications, and with its completion in the early spring, will have delivered nearly three-fourths of a billion hard-hitting sales messages reaching into every area where there are prospective L. P. gas users.

All Appliances Featured

Since the gas range is the "foot in the door" for the dealer in his search for new customers, the National Committee decided to concentrate on this No. 1 user of L. P. gas in the early stages of the campaign, while giving secondary emphasis to water heating, refrigeration, home heating, clothes drying, incineration and the many farm applications of the fuel. Now that we've had a chance to feel our way and make our initial impact on the public, we are devoting more and more attention to the uses of L. P. gas with a lesser degree of saturation. For example, water heaters dominated our sixth round of ads last spring and summer and next year—ahead of the cold-weather season—we will play up L. P. gas heating.

As most of you know, in order to help the dealer to tie in with

"YOU CAN'T LOSE"

If you capitalize on the great LPG potential for domestic, commercial, industrial and agricultural sales which lie in small towns, suburban areas and on the farm.

our national theme at the "grass roots," we provide a broad-gauge, local-level advertising service. Ahead of each new round of magazine ads, "merchandising kits," containing samples of folders, mailers and newspaper ad mats, radio "spots" and "pattern" press releases, are sent to dealers throughout the country.

A new kit, tuned to the theme of our coming eighth round of magazine advertising, will be released in a few weeks. Among the items it will contain are a badly needed folder on L. P. gas tractors and a mailer devoted to L. P. gas clothes dryers and chicken brooders.

The second major operation of our program—publicity—is also making rapid strides.

I won't enumerate the many publicity articles the Information Service has placed this year—the list is much too long. But I would like to tell you about the most spectacular release. It was the story which pointed up the fact that, in the face of skyrocketing living costs, the average price of L. P. gas has gone up only 7% in the last five years.

This story was exceedingly timely. It received such a big "play"

"YOU CAN'T LOSE"

If you—

1. Do more and better advertising.
2. Tell your story to the public.
3. Sharpen selling techniques.
4. Build better public relations through service and courtesy.

in the press because it was on a subject of current vital interest to the public—the high cost of living.

One of the major services our training operation will supply to the industry is still in production, but will soon be available. This is a complete sales training course covering the fundamentals of successful selling and, specifically, the selling of L. P. gas ranges, water heaters, refrigerators, house heating equipment, clothes dryers and incinerators. It will embrace eight booklets in all, plus supplementary question-and-answer sheets and other training tools tailored to the industry's needs.

As most of you know, the twin problems of meeting the yearly winter peak demand for fuel and leveling out our annual load curve have been troubling the L. P. gas industry for several years. These are public relations problems, which could have a tremendously serious effect on the future of the business if they are not solved.

Last year the National Committee, quick to see the bad public relations implications of "spot" fuel shortages each winter and resulting poor service to customers, decided to do something about it.

The result is our adequate storage campaign.

This educational effort has as its dual purpose the stimulation of adequate storage facilities all along the distribution chain—from producer to ultimate consumer—and the promotion of summer consumption of L. P. gas to balance the industry's annual use ratio. Foremost among the tools offered to marketers in this connection is the "LP-Gas Storage and Ratio Manual," a 20-page reference handbook which the dealer can use to gauge storage requirements and delivery schedules for individual customers. It contains a handy map that tells at a glance the recommended tank sizing for domestic customers using L. P. gas for heating, cooking, water heating and refrigeration—in all sections of the country. Also included are degree day data and instructions for computing customer consumption and tank sizes.

More Storage Plea Has Helped

Although our adequate storage campaign is still only a year old, it is our firm belief that it has already had such an impact—both at the industry and consumer level—that the results will be evident this winter. This is something all of you should hope and work for—whether you are in the bulk or bottled gas business. A continuation of the fuel shortages we have experienced in recent years could wreck the industry.

Do you wonder why I made the flat statement that you can't lose?

If you get behind this program

and give it your full cooperation, if you make use of its many practical services, if you tie in your own promotional efforts with the national campaign, you can't lose and the industry can't lose either!

We have a tremendous future in store for us if we play our cards right. Just take a look at the unsold market!

Our recent consumer survey showed that 23% of the homes in our markets—and that includes farm, small town and suburban households—still cook with old-fashioned methods. They're using wood, coal, kerosene or gasoline.

The survey revealed that 42% don't have modern water heating. They either have no water heater at all or burn coal or wood.

Thirty-eight per cent of the homes with central heating plants and 23% of those with space heaters burn coal or wood.

Don't Forget Replacement Market

These percentages represent only our virgin market. They don't take account of the replacement potential in appliances and equipment.

The surface has scarcely been scratched when it comes to gas refrigerators, clothes dryers and incinerators. And in the case of L.P. gas tractors, brooders, pumps, stock tank heaters, drying equipment and the many farm uses for our fuel, the sky's the limit!

Yes, ours is an industry with plenty of promise. But, remember, we won't reap the golden harvest if we just sit back and take it easy.

"YOU CAN'T LOSE"

If you help the LPG industry "short circuit the high voltage campaign of Reddy Kilowatt."

Reddy Kilowatt is after the same business—and he's running a high-voltage campaign. We're going to have to work, sell and shout about our fuel from the housetops in order to short-circuit his success.

This is a job none of us can do alone. However, if we work as a team and pool our resources, we can't lose. We have a better fuel to sell—a better story to tell. All we have to do is to make up our minds that we're going to do the job that's got to be done. It will take lots of money, time and perspiration, but in the end it will pay off in a secure future for your business and the entire industry.

As of September 30, we had received a total of \$937,000 in contributions to the promotional program. Since we are on a pay-as-you-go basis, of course, the bulk of this money has already been spent—on advertising, publicity, training, the adequate storage campaign and our many other activities.

The industry can't lose either. With a well-planned, integrated promotional program—backed by all segments of the business and telling the magic story of L.P. gas over and over in all of our markets—it's bound to win out over the stiffest competition.

The bake oven—too dark to show—is beneath the two large kettles shown at top of picture.

Cooking Standards Raised

Chef Turnover Reduced

Kitchen Comes Out of the Red

... When Kentucky Country Club Turns to Gas

IN the successful operation of a country club, food is just as important as golf. The golf "professional" is the boy who is likely to get all the glory, but if the club maintains its membership and keeps out of the red, there is an equally competent "professional" in the kitchen.

What has this to do with L. P. gas? A great deal. The "kitchen pro" who can satisfy the gastronomic requirements of the club members does not necessarily have to work in a country club. Such a man can get, and hold, a good job almost anywhere as chef of a hotel or a big restaurant. And if the kitchen facilities at the country club do not match those of the metropolitan establishment, the good chef is going to work where things are more to his liking.

The Louisville Country Club, at Louisville, Ky., found this out through experience. When the club was built in 1910 coal was almost universally used as fuel in that part of Kentucky. The club kitchen was at that time the last word in coal-burning convenience. It was under no particular handicap, as far as getting and retaining help was concerned, while the rest of the community operated on coal. True, it required quite a staff to feed the fires, keep the ashes cleaned up, and clean up after the "black gang" who carried the fuel and ashes. But when the metropolitan areas advanced to gas cooking, it became more and more difficult to keep the

By **CARL ABELL**

right kind of "kitchen pro" on the job. The good ones went elsewhere, and the ones that were not so good were no bargain for a country club or any other organization trying to operate on an even financial keel. The Louisville Country Club had seen quite a procession of chefs who either could not be kept, or could not be tolerated.

In 1948, the directors on the board decided that it would be necessary to bring their kitchen up to modern standards, so they could get the kind of help and build the kind of volume that would make the kitchen self-supporting. That called for propane-fired cooking equipment, which offered convenience, accuracy of control, and cleanliness comparable to the best metropolitan kitchens. They knew that it would cost a little more to buy a season's fuel, but they believed that they could save enough in the cost of handling coal and cleaning up after its use to justify the change.

Better Fuel, Better Meals

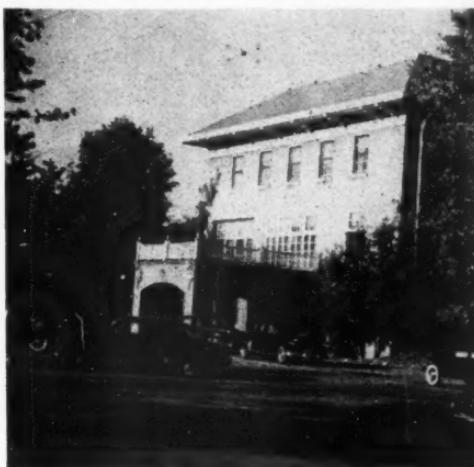
More important, they believed that the change would enable them to secure and retain better kitchen talent, which would in the long run enable them to serve more meals, and thus build up the volume necessary to pay the kitchen expenses.

Their judgement in these matters has been amply justified. The Louisville Country Club now has an enviable reputation for good food, the membership quota is maintained with minimum turn-over, and a nice operating surplus is available each year to put into club improvements. And the parade of chefs who came and went has stopped. The club is

satisfied with its chef, and the chef is satisfied with his job.

New cooking equipment, including range, hot plate, broiler, deep fryer, and oven, were obtained from a local manufacturer, the Hart-Vulcan Manufacturing Co. Tanks and fuel were secured from Kentucky Gas Service, Inc.

Propane is used for cooking only. Hot water comes from a coal-fired boiler, which is housed in a separate building, and supplies hot water and heat to the entire clubhouse.



Louisville Country Club is the social center for the families of its 800 members.

Without the heating load, and on account of steady year-round promotion of dining room activities by the club management, the monthly requirements for gas are nearly constant throughout the year, running between 800 and 1000 gallons per month.

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Broiler, ranges and oven, with Fred Moore, assistant chef, at the controls.

Fuel supply is handled in bulk, and stored in two underground tanks of 1000 and 500 gallons capacity. The changeover is manually operated, and the fuel from the large tank is used for the steady operation. When the supply in this tank is exhausted, it is necessary to change the valves by hand, which

reminds the steward that it is time to order fuel. The reserve in the small tank supplies fuel for a considerable period, so the delivery can be fitted conveniently into the supplier's delivery schedule several days ahead without danger of running the club kitchen out of fuel.

Like any other country club, the

Range bank. Preparation for special dinner at the Louisville Country Club.



"peak load" requirements on the kitchen reach high levels on special occasions. On "Derby Day" this past spring 553 lunches were served, and during the Derby season, more than 3000 meals were served in four days. In order to handle the running requirements of

kitchen staff busy. During the year ending last Aug. 31, the club served 83,094 meals. As an important sideline, which helps on kitchen revenue and adds to the productive hours of the help, turkeys are roasted and hams are baked for members to take to their homes.



Rudy Moorman, chef, and Stephen Long, steward, approve the setup for a birthday dinner.

the club, 18 steady employees are retained in the kitchen. For the special events, this staff is sometimes augmented by several additional helpers.

So that help may be available for the peak periods, it is necessary to promote activities which lead to a steadier demand for meals at the club, and thus keep the regular

The menus are under the supervision of Stephen Tong, the club steward. The general plan is to serve a limited number of entrees, superlatively prepared, for each meal. A typical dinner menu includes steaks, roast beef, fried chicken, lobster or shrimp Newberg, and corncakes and pork sausage. The limited menu seems to meet all

requirements and avoids the waste of food which follows from too wide a choice of items.

The steward is kept busy with the management of the kitchen, procuring of supplies, and enforcement of quality standards. Foods are bought to specifications, and any deliveries which do not come up to par are rejected. They are particularly fussy about the quality of their beef, which is bought in the chunk, and sliced and trimmed in the kitchen. During a typical month, about 2500 lbs. of choice and prime beef will be bought, and processed into steaks, roasts and choice hamburger.

Bread is bought from a local bakery, but the club ovens turn out all of the pies, pastries, and Southern corn bread which are required.

Social Events Build Volume

Keeping up the volume of meal sales is the personal responsibility of the club manager, Byrne Bauer, who was formerly in charge of promotional activities for the Hotel Greenbrier, White Sulphur Springs, W. Va. Under his guidance, the club conducts numerous social events which appeal to various groups among the 800 members. Typical activities include bridge luncheons and duplicate bridge tournaments at regular periods, fashion luncheons two or three times a year, dinner dances on Thursday and Saturday nights throughout the summer, regular dances and square dances alternating through the fall and winter months, wine tasting events, and

"Country Store Nights" with family style dinners served on huge platters. A recent innovation is a special Saturday night dinner for young married people, priced at \$1.50 so the cost of the two meals and the baby-sitter will come within the budget of the younger group.

A register of the birthdays and wedding anniversaries of the members and their families is kept in the club office. Ten days before the anniversary arrives, Mr. Bauer sends a hand written note to the person, offering the congratulations of the club, and closing with a reminder that the club has special facilities which are available for the celebration of the event. Many members arrange for special birthday or anniversary dinners in one of the five special dining rooms, which are also available for other private affairs which members may wish to hold. The club handled over 350 of these private parties during the past year.

Profits Come from Gas Use

Operations of this character require the best in food and cooking. Kitchen "pros" capable of turning out meals which satisfy such discriminating requirements can only be kept happy in clean, well equipped, convenient kitchens, comparable with the best that metropolitan establishments have to offer. L. P. gas makes these modern kitchens available to every country club. The installation can be highly profitable for the club, and for the dealer who supplies the fuel.

Uneven Regional Consumption Shows Areas of Largest Potential Sales

A CURRENT REPORT upon the wide variation in consumption of L. P. gas in many states, based upon rural population figures, was given in a paper delivered by Mr. Lynch at the fall meeting in Los Angeles of the California Natural Gasoline Assn.

Figures and statements of special import to the LPG industry are here extracted from his talk, which was entitled, "Recent Trends and Developments in the Natural Gasoline Industry."—Editor.

IN plotting a few figures, I have found to my amazement that the consumption of L. P. gas is almost phenomenally low in many of the states in the colder areas of our country.

Transportation has been one of our big handicaps; but, also, I took a look at the gallons of domestic consumption of L. P. gas per capita in rural populations and found some amazing figures, part of which can be explained and part are difficult to explain.

I have taken the five main districts which have been established by PAW and PAD respectively and made some analysis of the consumption per capita of the rural populations. These are tabulated in Table 1.

By JOHN F. LYNCH

La Gloria Corp., Corpus Christi, Texas, and President of the Natural Gasoline Assn. of America.

The figures shown would indicate that there are many rural areas which are potential consumers of L. P. gas. There are, no doubt, many of these areas in which the sales could be increased tremendously. Perhaps the greatest practical potential for new L. P. gas markets is in the 3½ million gasoline-powered farm tractors now in use. It has been estimated that if 25% of these farm tractors could be converted it would increase L. P. gas consumption by a billion gallons per year over a present 4.1 billion gallons per year.

There are several factors which contribute toward making the present prospects of the L. P. gas industry appear bright. Some of these factors are the large number of rural dwellings still using coal, coke and wood for cooking fuel; the pronounced trend of population toward suburban and small town neighborhoods; and the new dwelling construction which is taking place beyond the gas mains.

The building of storage reservoirs is of great importance because in certain parts of the country during the winter months the

TABLE 1

State	Consumption Per Capita
Alabama	20
California	46
Louisiana	82
Massachusetts	46
Michigan	19
Minnesota	37
Mississippi	31
Nevada	46
New York	21
Ohio	12
Oklahoma	75
Pennsylvania	11
Rhode Island	78
Tennessee	11
Texas	82
Utah	10
Vermont	24
Virginia	12
Washington	10
West Virginia	4
Wyoming	107

industry is out of balance by as much as eight to one. Such conditions as this create spot shortages unless storage can be provided to overcome them.

Actually, this storage can be provided and will be helpful at any points from the producer to the consumer.

The L. P. gas industry could play an extremely important part in the event of war. If gasoline were curtailed for domestic use as drastically as it was in World War II, and L. P. gas were established as an engine fuel, it would certainly release much additional gasoline to

other uses. Also, it would be a splendid standby fuel if, for some unfortunate reason, heat and power facilities were destroyed. Also, it would be readily transportable as a fuel for cooking and heating; use in hospitals; in combat zones and isolated army camps or, for that matter, in any area where gas and electricity were not available.

If our industry could see fit to spend the amounts that some of our competitors do, such as our own gasoline marketing groups—not to mention the electric power industry—you would see the per capita consumptions that I have enumerated level off to a great extent and the states only a few hundred miles apart not vary so widely in consumption.

Durane Gas & Appliance Co. Opens in Charlotte, N. C.

Durane Gas & Appliance Co., Charlotte, N. C., held its formal opening on Oct. 18. This company provides complete service in the distribution of Pyrofax bottled gas over its territory. It also engages in the retail sale of various lines of gas burning appliances. These include ranges, water heaters, refrigerators, clothes dryers, and heating equipment.

Demonstrations of the equipment are in charge of representatives of the manufacturing companies and members of the Durane staff.

Norman Guthrie is the owner of the Durane Co., Haskell Deaton, manager; William Woods, office manager; Luke S. Yandle, salesman, and J. W. Evans and Frank King, servicemen. Mrs. Ethel B. Fincher has joined the company as a home economics advisor.

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NE News

One More Month To Wait For

↓



IT'S just one more month till the mailman will lay on your desk the new enlarged **BUTANE-PROPANE News!**

The January issue will appear in an expanded format that will be in great contrast to the pocket-size edition that readers have been carrying about with them for nearly 14 years. But it will be just as good—in fact, better. By being larger it will contain more editorial material and permit additional space for photographs, drawings, tables and other display matter.

The L. P. gas industry, with its broader problems, will be more graphically covered in the new **BUTANE-PROPANE News**. As for many past years, you will find it the source for all important information for the LPG industry, whether your particular concern be for technical data or help in solving the problems of selling, accounting, servicing, or managing a business.

Look forward to the January issue—and tell us how you like it.

In the January issue we will take you back to 1904 in the liquefied petroleum gas industry. We will show you how it started and developed; its problems and successes; and the men who helped it grow—a history you will always want to keep!

PRACTICAL MANAGEMENT OF AN LP-GAS BUSINESS

CHAPTER 18

WHAT Makes A Cooking School CLICK?

- Competant Demonstrator.
- Careful Planning.
- Suitable Hall.
- Non-Conflicting Date.
- Advance Advertising.
- A Good Range In Adjustment.
- Breaks to Relieve Monotony.
- Prizes.

Cashing In

- Get Names of Attendants.
- Follow Up Leads Quickly.

THE first essential of a successful cooking school as a means of promoting business is a competent demonstrator. Not only must she know her business, but she must be able to talk before a group of women as she demonstrates. She must be neat in appearance. One of the most capable woman demonstrators that I have known failed to click because she was careless about her appearance.

A young woman, fresh out of a

home economics school does not necessarily make the best demonstrator. She may be right up to the minute with the latest cooking practices, but she lacks experience which is convincing to the housewife who has to cut corners for time's sake or make economies for the benefit of the family pocket-book.

A successful cooking school requires a lot of time, thought and work in advance preparation. It isn't just a case of having a demonstrator show a group of women how a roast beef dinner can best be cooked with gas. First, you must obtain a suitable hall in which to hold your cooking school. Next, you must be sure to select a date which does not conflict with other happenings in the town. Good advance publicity is essential. Just an advertisement in the local newspaper or a spot announcement over the radio is not sufficient. Attractive handbills must be distributed from door to door throughout the territory that you intend to cover.

Evening Schools Needed, Too

There should be afternoon and evening cooking schools so that either the home-keeping housewife or her employed sister may attend. There should be different menus for each session to interest those who may attend both of them.

The range with which you demonstrate must be acceptable to the demonstrator. It must be accurately adjusted after it has been installed in the demonstrating hall. If possible, a factory representative of the range manufacturer should double-check the adjustments made

by your serviceman. The range must be level, spotless, well illuminated, and properly positioned on a stage or elevated platform which is large enough to allow the demonstrator to move freely about it.

The stage setting should be in good taste. Every item that the demonstrator may need should be checked and properly placed. Attractive cooking utensils should be provided. Dishes and silverware for sampling the cooked products by your guests should be in abundance.

You might think that with all of these preparations you have a cooking school well on the way, but you have hardly started. Reddy Kilowatt has aborted the old-fashioned cooking school by all sorts of free gifts and prizes to attract the ladies. You cannot let your cooking school be a drab affair by ignoring his technique entirely. You can, in fact, go him one better. Distributors of brand-name products welcome any good opportunity to publicize their products.

Let's imagine a fictitious brand of coffee named "Aroma," and that your demonstrator is a Miss Johnson. The blenders of Aroma coffee would love the publicity of having it known that Miss Johnson uses Aroma coffee in her demonstrations. Aroma would jump at the opportunity of having a demonstrating table or a booth at the side of the hall. The same goes for manufacturers of canned goods, cookies, bakery products, and even the meat packers have been known to cooperate. Free samples are usually in order.

The best way to approach the

food manufacturers is through the local merchandisers who represent them. Your grocer will welcome the chance to display if he can get in on your little act with no more expense than rigging up a booth, or table, having someone in attendance, and passing out free samples or literature which are furnished to him by the manufacturer. Suggest that he have free samples, but don't try to rope him in on any of the hall expense or any expensive prizes or gifts. Your motive in letting him in on the show is obvious enough as it is, and you must offer him the inducement of sales promotion at a ridiculously small cost if you are to have his wholehearted cooperation.

Merchants Will Cooperate

Cooking schools of this nature can be miniature Home Beautiful Shows if they are carefully organized, and the whole thing will center around YOUR cooking school. The problem of give-away merchandise has been solved by your allowing non-competitive merchandisers to cooperate. You can give them publicity in the hand bills which you pass out, and they in turn can give your school a boost in their regular advertising by announcing that they will be exhibiting at it. Some dealers who have put on cooking schools of this nature have programs printed which are handed out to their school guests at the door.

A cooking school can be a boring experience if nothing is introduced to break up the continuity of a demonstrator talking about cooking for two hours or more, for

which reason there should be someone from your organization to preside, introduce the demonstrator, interject short remarks about gas cooking from time to time. Also, he should be capable of bringing in something of a comedy nature occasionally. He must be able to cope with any unexpected happening, such as failure of the demonstrator to produce the desired results or an occasional heckler from the audience.

Get Names of Attendants

Be sure to have plenty of personnel in attendance at the school, for in spite of the best thought-out plans there are always plenty of things which have not been anticipated and which require last minute attention. The most important thing is to procure the names of those who attend, and this should be done in the form of a registration at the time that your guests enter the hall. You can, if you wish, use Reddy Kilowatt's subterfuge of prizes to be drawn at the close of each cooking school session. The winners should be required to be in the hall at the time of drawing and prizes should not be transferable.

Prizes may be something like a set of dishes or a free gas installation. I have known of successful registrations to be procured at the door without using Reddy's subterfuge. A registration blank in the form of a survey card was used. There will be some who will refuse to fill out such a blank, but lists procured in this manner eliminate many of the "dead heads," thereby entailing less unproductive follow-

Fig. 1. Registration Blank

WEST OVERSHOE GAS COMPANY
West Overshoe, Maine

POTENTIAL MARKET SURVEY

Dear Friend:

We are trying to determine the potential market for gas and gas appliances in this vicinity. You can help us in determining the types of appliances which we should stock by checking the answers to the following questions. We shall greatly appreciate your cooperation in making this survey.

Sincerely,

WEST OVERSHOE GAS COMPANY,
J. Z. Brown, President.

My Name Is _____

My Address Is _____

Please Check Your Answers To The Following Questions.

1. What Fuel Are You Now Using For Cooking?	Gas Oil Coal	Wood Electricity Other
2. What Fuel Are You Now Using For Water Heating?	Gas Oil Coal	Wood Electricity Other
3. What Fuel Are You Now Using For Refrigeration?	Gas Oil Coal	Wood Electricity Other
4. What Fuel Are You Now Using For Space Heating?	Gas Oil Coal	Wood Electricity Other
5. If You Had Your Choice What Fuel Would You Use For Cooking?	Gas Oil Coal	Wood Electricity Other
6. Do You Contemplate Changing To The Fuel That You Prefer?	Yes	No

up calls after the school is over. A typical registration blank of this nature is shown as Figure 1.

Time is very important in following up any prospect list and a

rule-of-thumb method of determining the value of such a list is that it deteriorates inversely as the square of the time delayed in following it up. We suggest one week

REGO CONTROL EQUIPMENT for MOTOR FUEL CONTAINERS

FEATURING THESE *New* REGO VALVES

Developed specifically for motor fuel containers . . . the design and operating advantages of these valves are yours when you specify Rego . . . VIBRATION PROOF—built to withstand vibrations. MINIMUM PROJECTION—fit close to container to reduce hazards of breakage. RECESSED MECHANISM—protected inside container. UL LISTED—tested and listed by Underwriters' Laboratories, Inc.

New! REGO SAFETY RELIEF VALVES



These new Rego Safety Relief Valves are designed so that the valve mechanism is recessed within the container. This provides maximum protection should the vehicle be in a collision.

The Rego No. 7540 and No. 7541 relief valves are identical except that the latter is furnished with a 1" pipe-away thread for the connection of a vent conduit so that the relief discharge can be directed as desired.

SPECIFICATIONS

Pipe Size	Setting Suffix	Start-to-Discharge Pressure Setting	Rate of Discharge (LP-Gal)
1"	"G"	250 ⁺⁰ - 10 psi	845 cfm
1"	"T"	312 ⁺⁰ - 10 psi	1100 cfm



New! REGO DOUBLE CHECK FILLER VALVE

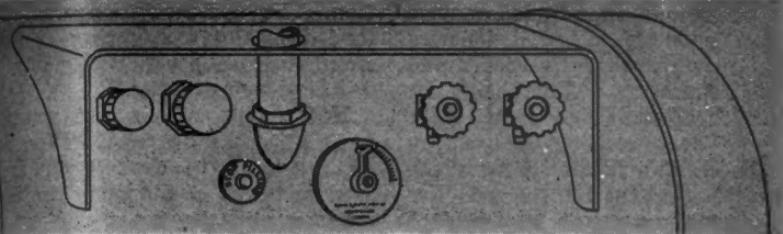
Designed to speed filling, reduce hazards and to take standard 1 1/4" Acme hose connection for tank refueling. Provided with only one wrench-

ing surface on the lower body to avoid excessive accidental wrenching of upper body during installation. This valve fits a 3/4" NPT tank opening, permitting flexibility of arrangement of filler, vapor return, liquid and vapor shut-off valves. Fast filling rate of 19 GPM with only 10 psi pressure differential. Double check shut-off for extra safety in event of hose failure.



New! Rego Vapor and Excess Flow Valve

This valve is designed to fit 3/4" NPT tank opening and offers the same safeguard against wrenching damage as the Rego Double Check Filler Valve. It takes standard 1 1/4" Acme hose couplings now in general use and is equipped with an excess flow valve which shuts off automatically should hose rupture.



There are three important reasons why Rego should be standard control equipment for your motor fuel containers.

1. Correct type of equipment—Rego's complete range of equipment fills all container requirements for all mobile and stationary engine installations.
2. Safety—Every Rego valve is designed for a specific use and is thoroughly laboratory and field tested.
3. Dependability—Rego equipment is time tested by the LP-Gas Industry. It is rugged in design and construction and is proven in service.



REGO LIQUID SHUT-OFF VALVE

No. 3101H6

Positive opening and closing. Leak-proof diaphragm construction provides safe, trouble-free operation. Inlet $\frac{3}{4}$ " NPT, outlet $\frac{3}{8}$ " SAE flare. Equipped with integral excess flow valve and inlet adapter for dip pipe.



VAPOR SHUT-OFF VALVE

No. 3101HS

Full opening and positive shut-off with leak-proof diaphragm construction for long, trouble-free service. $\frac{3}{4}$ " NPT inlet, $\frac{3}{8}$ " SAE flare outlet. Built-in integral excess flow valve for added protection.



REGO ROTOGAUGE*

No. 2072

Permits accurate and safe reading of container contents. Easy to use. May be side-mounted at 90% level, or center-mounted on side or end. $\frac{3}{8}$ " NPT tank connection.



FIXED TUBE LIQUID LEVEL GAUGE

No. 3163A

Determines when container is filled to maximum permitted level. Spring clip keeps valve from opening even under severe vibration.

No. 3163 with dip tube also available for installation of valve at other than 90% level.



^{*Reg. U. S. Pat. Off.}
The **BASTIAN-BLESSING** Company
4201 W. Peterson Ave., Chicago 30, Illinois

PIONEER AND LEADER IN THE DESIGN AND
MANUFACTURE OF PRECISION EQUIPMENT
FOR USING AND CONTROLLING LP-GASES

as the limit of time to follow up a prospect list. If it is not followed up for two weeks, the results obtained from it will probably be but $\frac{1}{4}$ th of what they should have been. Where cooking schools are not successful, it has been my observation that the fault usually lies in not making proper and prompt use of the prospect list obtained. A well planned campaign of calling upon prospects must be initiated just as soon as the school is over, for if not, the whole effort may be a failure.

Do Men Excel Women?

Strange as it may seem, the most successful cooking schools which I have observed have had men as demonstrators instead of women. A woman likes to see a man cook, and the outstanding chefs of this country are men. Once in a while one of these can be found who has a flare for demonstrating his knowledge, and when this happens you most generally have an excellent demonstrator.

At one cooking school a certain well known chef operated with two identical stoves. On one he cooked as he imagined the average woman cooked. On the other one in his own way. Considerable comedy was introduced, but he drove home some facts as to commercial cooking that could well be applied in the average home.

His theme was "How to save time in domestic cookery."

His contention was that women spend a lot of unnecessary time in preparing tasty meals, and those who attended could not have helped but gain much valuable informa-

tion. The demonstration was attended by an overflowing crowd, simply because a man was going to do the demonstrating.

How much will it cost you to put on a cooking school? There is no limit to what it can cost you, and even in towns of the same size the expense will vary greatly. For instance, a demonstrator may cost you \$10 or \$50 for two demonstrations. The hall may cost you \$10 or \$100. In a town of 3000 people with a surrounding population of 1500 people, getting out handbills will probably cost you in the vicinity of \$100. Food, cooking utensils, labor, are but few of the other costs. If you get out of a modest school short of \$450, exclusive of the "prizes" which you may choose to give away, you can consider yourself lucky.

Cooking Schools Build Prestige

Will a cooking school pay off in profits? Most likely the answer in relation to immediate profits is "No." It is hard to trace the results of a cooking school and its effect may be felt at some time to come. Chiefly the values of such schools are in intangibles, such as good will created and a better public acceptance for gas as a cooking fuel.

Cooking schools are of great value in building the morals of a sales organization that has bogged down or one that is having difficulty in procuring a healthy list of prospects. Problems of this kind are quite valuable in sales organizations to relieve the monotony of day-by-day sales effort and to give salesmen an uplift. In moderate or

TABLE 1. CLOSURES TO BE EXPECTED FROM VARIOUS TYPES OF SALES PROMOTION BASED UPON OBSERVATION OF SUCH PROPERLY MANAGED ACTIVITIES

Type of Activity	Closures in Relation to Attendance	Registration	Persons Signifying Interest	Mail Campaigns
Country fairs.....	0% up to 1/10th of 1%	.....	0% up to 2%	.....
Trade shows.....	1/8 of 1% to 1/4 of 1%	.....	1/2 of 1% up to 1 1/2%	.....
Church or lodge fairs.....	1/2 of 1% up to 1%	.....	1% up to 4%	.....
Guessing contests.....	.....	1/2 of 1% up to 2 1/2%	2% up to 7%	.....
Lotteries.....	.....	1 1/2% up to 4%	2% up to 10%	.....
Cooking schools.....	1% up to 5%	2% up to 7%	5% up to 12%	.....
Direct mail campaign.....	.....	.....	.....	1/2 of 1% up to 1 1/2%

Note:—All types of sales campaigns require doorbell ringing programs to follow them up in order to be successful.

large sized sales organizations a cooking school is usually followed by a marked upswing in the sales volume curve.

If your sales force large enough to afford this sort of thing, and if is, is it headed by a person competent to organize and see that it is followed through to the very last, possible prospect?

Cooking schools in which all of the gas dealers in a locality club together in a single cooperative effort are gaining in popularity and have been outstandingly successful. The day has gone by when gas dealers can continue to be rugged individualists in all respects.

Let us take as an example a small community in which there are five or more competitive gas dealers. If each one puts on a cooking school there will be five small commonplace such schools which fail to excite anything but moderate interest.

Along comes the electric utility with millions of dollars behind it and puts on a spectacular show which overshadows the entire five such small shows put on by individual gas dealers. It doesn't require imagination to guess what the effect is on the buying public.

One has but to attend a fair or trade show to witness the unfor-

tunate workings of rugged independence among gas men. Here one is apt to find five or six modest displays by independent gas dealers backed into insignificance by a single mammoth display by the electric company. There is much to say in regard to this matter of co-operation between gas dealers against the amply financed competition of the electric companies. Let it suffice now to say that co-operative efforts of this nature between competitors in the gas business *do work!*

You may think that your competitor across the street wears horns and a tail. He probably thinks the same thing about you. When you get together on a proposition of this kind each one of you will probably find out that the other fellow is, after all, a decent sort of chap.

Good Cooperation Needed

How does such a cooperative endeavor work? In the first place, all of those entering into it must be parties to a gentleman's agreement. All parties to it share equally in the expense. Each has equal space for display. Each has an employe in attendance at all times during the show.

If anyone expresses particular interest in a competitor's range or service, he is turned over to the representative of that competitor by the salesman who is talking with him. Knocking or making derogatory remarks about any gas dealer's products or service is cause for immediate disbarment from the show by vote of the other dealers.

Registration cards provide a space for the prospect to express a preference for any particular dealer or product. All registration cards are dropped into a single locked box. At the close of the show this box is turned over to a disinterested party or committee which first sorts out the cards expressing a preference and assigns them to the proper dealers. The remaining prospect cards are dealt out just as one would deal out a pack of cards unless there has been a previous agreement among the dealers to divide the prospects by territory or on some other basis.

Fuel is Deciding Factor

Before putting on a cooking school or entering into any sort of a show, give this cooperative effort angle a whole lot of consideration. After all, what is it that persuades the prospect to buy a gas range in preference to an electric range? It isn't the chromium trim or gadgets on either range; neither is it the showroom or the way in which you or the electric company representative part your hair. These minor things may help to influence the prospect's choice, but fundamentally his or her decision is made upon the fuel and what it will do.

You aren't as vitally concerned in getting a customer away from your rival in the gas business as you are in keeping that customer from "going electric." Each time that a prospect does "go electric" you are but building up sales resistance for yourself with other prospects.

One bugaboo of all cooking

schools and shows is the attitude of many salesmen toward such events. The carnival spirit is in the air at such times and salesmen are particularly susceptible to this spirit. Many enjoy the fanfare of such times and enter into them as if they were a grand picnic staged for their own personal enjoyment. Nothing can defeat the purpose of cooking schools or shows more effectively.

Profit is the Object

It must be impressed upon the sales force that such undertakings are staged for the sole purpose of creating business. I am not averse to parties and good times for salesmen at the right time and in the proper place, but neither of these are in order when I'm spending my good money to provide customers for them.

No booze, no late parties after hours, are my rules while a program of this nature is in process, and the factory representative who thinks to make of himself a good fellow by waving a bottle of hooch under my employes' noses at such a time is certain to be sent unceremoniously back to his home office. Such a factory representative is more of a hindrance than a help when programs for the retail buying public are in progress. If a celebration is in order, let it be after the school or show is over and stage it at the end of a week so that jittery nerves may be calmed by Monday morning and a return then made to the more prosaic effort of making a living by selling merchandise.

Once a prospect list is in your hands you should start immediately working upon it by sending out mailing pieces to the prospects. These serve a dual purpose in that they are a stop-gap until your salesman gets around to calling upon the prospect. Furthermore, they do not allow the prospect to forget gas and gas appliances, and by using judgment in the kind of mailing piece sent out you may help the prospect to decide upon some particular appliance model.

What percentage of closures have you a right to expect from a cooking school, trade show, home beautiful show, or fair? Much depends upon its nature, but more depends upon you. Perhaps Table 1, based upon experience, may help you to decide whether or not the effort is going to be worthwhile and what amount of money you should invest in the project.

Bulk Operation Developing In Kentucky Fringe Area

Bottled gas dealers in the fringe areas beyond the territory served by bulk operators in Kentucky are now selling a few 500 and 1000 gallon bulk systems for commercial and house heating accounts, and arranging for deliveries either directly out of truck transport outfits, or by periodic excursions of bulk trucks sent out by friendly bulk operators located in some instances as much as 60 miles away.

This is definitely a temporary measure, useful only until such time as these bottle gas dealers have developed sufficient numbers of bulk accounts to warrant putting in their own bulk storage and delivery trucks.



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Customers respect reputation and experience . . . your own and that of the manufacturer whose equipment you feature. Oil storage equipment was BS&B's first product. Since then we've been customer-rated as one of the oldest and most dependable fabricators of pressure vessels. BS&B Perfection Propane Systems are constructed, tested and proven according to rigid code specifications. They're designed to give your customers years of trouble-free service . . . to keep your repeat orders for LP-Gas rolling in. BS&B Perfection Systems available in 250, 500 and 1,000 gallon capacities.

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Research Reveals Need for Changing Venting Regulations

THE venting of gas appliances finally has been placed on a sound scientific basis. This development, of vast importance to the gas industry and the heating business, is the result of extensive engineering research recently completed by William Wallace Co. with the help of the Stanford Research Institute. The effect of this work will, in time, bring about standardization of code regulations, simplify the work of installers and strengthen the competitive position of gas appliances in the home heating market.

Early Installations Were Faulty

In the early days of gas heating, "out of sight" was "out of mind" with respect to the invisible products of combustion of gas-burning equipment. Many appliances were installed in the belief that any type of passageway from the appliance to the outdoors was adequate. In time, of course, rusted or crumbling vent pipes, damaged walls and discolored furnishings brought about realization that gas venting was a more complex matter than building a chimney for a fireplace.

In the engineering research recently completed, the fundamental laws governing venting were determined and then experimental work was performed to verify these laws and evaluate any unknowns involved. The first step in this work was a study of the underlying factors involved in venting.

From accepted physical laws it is known that vent gases flow through

By ALAN KINKEAD

President, William Wallace Co., Belmont, Calif.

and up a vent because they are hotter—and hence lighter—than the ambient air. The hotter they are in relation to the ambient air, the faster they will flow. Hence, it is obvious that the heat content of the flue gases (which are the products of combustion in the appliance before they enter the vent) represent the available power to operate the vent. It follows then that the first requirement of a vent is to conserve this available power throughout the length of the vent—in other words, to keep the vent gases hot.

In the work performed by William Wallace Co. and the Stanford Research Institute, these fundamentals were expressed in a mathematical equation and tested by experiments with actual vent installations. The combination of fundamental theory and extensive tests produced the desired results, namely, a scientific basis on which to design any gas venting installation.

Among other things, these findings show that, for a vent of given dimensions and resistance, any increase in heat loss will cause a corresponding decrease in the average temperature of the vent gases and hence in the "power" of the vent to operate. While this should be a self-evident fact, it apparently has not been given much

weight to judge by the kinds of vent pipe materials still in common use. No one questions the necessity of insulating steam lines or hot air ducts, but few people seem to realize that gas vents must be insulated for the same reason. The explanation is that, until now, we did not understand the function of the vent gas temperature and did not fully appreciate the importance of conserving the heat content of the flue gases.

Bring Codes Up To Date?

The effect of these findings on existing vent practices may change many long-held concepts. For example, under certain conditions, it may be necessary to reduce the diameter of the vent to a size smaller than that of the vent collar. Practically all codes prohibit such a reduction in size, thereby making it impossible to install a proper vent under certain conditions.

Most codes require that a lateral run have an upward slope of $\frac{1}{4}$ in. per foot, while laterals in attic spaces are required to slope upward at least 45° . Actually, there is no scientific basis for this requirement. If the vent is run vertically a foot or more up from the appliance (to offset the inertia of gas flow) a perfectly horizontal vent will not affect vent operation.

Many codes require that when two vents are connected to a common vertical vent they must intersect at an angle of not greater than 45° . This is another restriction with no sound basis for its existence. Strangely enough, most codes permit the common practice of running a single wall, uninsulated pipe lateral from the appliance to an insulated vertical vent. This, of course, allows a substantial loss of heat before the gases reach the vertical run and wastes a

good portion of the "power" available to make the vent operate.

Probably one of the most harmful code restrictions is that which requires use of a tee at the bottom of the vertical vent where the connection is made to the lateral from the appliance. This involves, with the one to three elbows required, a considerable increase in resistance, and serious spillage at the draft hood might occur.

These examples of incorrect venting practices indicate the urgent need for prompt revision of many present code regulations and installing practices. However long this may take, gas appliance users are now in a position to demand and obtain a soundly-engineered gas venting system which completely eliminates condensation and spillage—which continuously removes all the products of combustion. A vent pipe ("Metalbestos") is available which is designed specifically to vent gas appliances and which will continue to operate as a rigid, integral venting system for an indefinite period. It is now possible to determine in advance how a given vent installation will operate. It is also possible to correctly specify the exact manner in which the vent should be installed under given conditions.

Canadian Propane Expands With Grande Prairie Branch

Canadian Propane Ltd. recently opened up a new branch office in Grande Prairie, Alberta. The official opening, on Oct. 18, was celebrated with open house and a drawing for a free, \$200 Caloric range. Reg Ambler is manager of this new office.

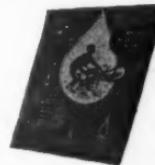
Canadian Propane operates additional branch offices in Alberta at Lloydminster, Camrose, Peace River, and its head office is in Edmonton.



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Scaife Co. Marks 150 Years in Business

SCAIFE CO., oldest manufacturing firm in the United States west of the Allegheny mountains, has been celebrating its 150th anniversary this year. But no fanfare has marked this important milestone; only a brief, simple program on Nov. 20 formally opened the new Scaife office building in Oakmont, Pa.

An "open house" for employes and their families celebrated the occasion, according to Alan M. Scaife, board chairman of the steel fabricating company which has grown in father-and-son tradition through five generations of the Scaife family.

Founder of the company was Jeffery Scaife, an industrious young maker of tinware and japanned ware, in 1802 —when Pittsburgh was a little outpost of jerry-built cabins and mud streets, barely free of Indian raids, and the War of 1812 was still a decade in the future.

Although never an industrial giant, the once-tiny business begun by Jeffery Scaife grew solidly through 15 decades, surviving fires and floods, panics and wars, and the changing fortunes of the market place.

The company has been engaged throughout its history in fabricating metals. It pioneered the familiar household range boiler many decades ago. In recent years Scaife has devoted its large plant facilities to development and production of pressure vessels and drawn shapes — among them cylinders for liquefied petroleum gas.

When the nation faces trouble, Scaife takes up arms with vengeance.



ALAN M. SCAIFE



A. V. MURRAY

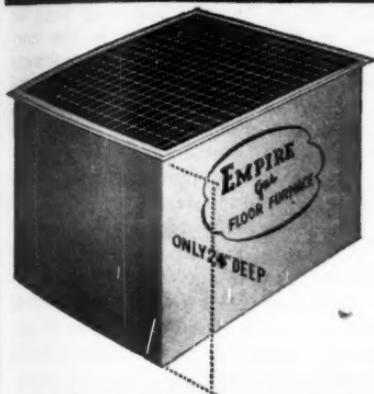
In 1812 it was tar buckets and sponge buckets — tar greased the cannon wheels, sponges cleaned the cannon for the next volley of fire. When North fought South in the 1860's the company, under William B. Scaife (the second generation head of the concern) turned out shell canister plates, shell straps, cantle plates for cavalry saddles.

During World War I Scaife Co. was a leading producer of diesel engine starting tanks for submarines, minesweepers and other Naval vessels, and flame thrower tanks for the Army.

In World War II it was 4.2 mortar shells, which the company proved could be made at great savings in both money and metal from standard hot-rolled tubing. This experiment—at Scaife's own expense—so convinced the Government that the company produced nearly two million of them for the Chemical Corps before the war's end. The same kind of technical knowledge, earned the hard way in producing peacetime goods, enabled Scaife to produce general-purpose aerial bombs.

For the fighting in Korea, Scaife was called upon once more to manufacture high-explosive mortar shells, and is working with the Navy and

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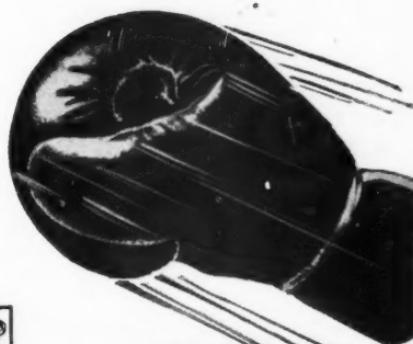
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NE News

the Air Force in development of special ordnance items. Armor plate also is being fabricated for tanks.

Within the past two years the company has performed a new kind of metal magic — developed its unique "reverse draw" method for deep drawing pressure vessels, shapes, tanks and containers. The complete facilities for this fabricating work at the modern Oakmont plant include large and expensive hydraulic presses. One 1500-ton giant is the largest of its kind in the world.

Many Scaife men represent second, third and even fourth generations of the company's employes—a fact in which they, and the Scaife management, understandably take pride.

Committee Pleased With Gas Fuel Technology Course

Seven members of the National Advisory Committee for the Gas Fuel Technology course met at Southern Technical Institute, Chamblee, Ga., on Oct. 10, to review the course and to

make plans for its improvement.

Fred A. Rives, president of the Consolidated Gas Co. of Columbus, Columbus, Ga., is chairman of the committee, and presided over the meeting. Earle A. Clifford, head of the Gas Fuel Technology course, reported that he has made some revision in the curriculum, adding specialized subjects which were necessary to meet the needs of industry, and had made a number of changes in the laboratory which permit better use of the equipment for study, demonstration, and experiment purposes.

The committee interviewed several 5th and 6th quarter students who are taking the gas fuel course. Each student reported the instruction excellent but requested that the program be expanded to include more subjects in the L. P. gas field.

Forty-two students are enrolled, representing 21 states from Maine to Washington and from Michigan to Florida. Fourteen of this number hold scholarships from the Gas Fuel Technology Foundation, and 13 have individually sponsored scholarships.



The National Advisory Committee for the Gas Fuel Technology course at Southern Technical Institute in recent meeting (left to right): Sidney Stapleton, A. R. Padgett and R. H. Wherry, all of Atlanta; M. L. Trotter, Columbia, S.C.; Fred A. Rives, committee chairman, Columbus, Ga.; T. G. Fields, district secretary, Southeastern District, LPGA, and C. R. Lawrence, both of Atlanta.

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ASSOCIATIONS

Alabama

The Alabama Liquefied Petroleum Gas Dealers Assn. held its annual convention at the Thomas Jefferson hotel in Birmingham, Oct. 6-8. Two hundred dealers and sales representatives from 14 states attended.

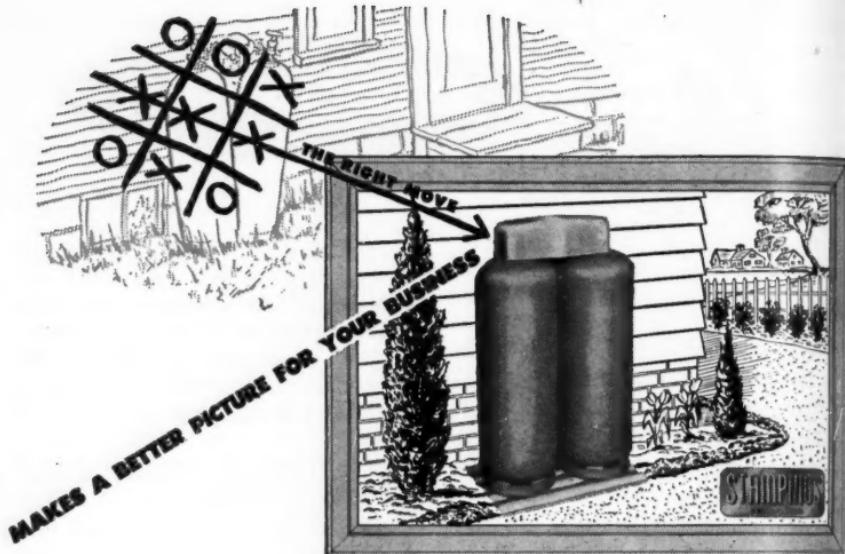
Luke Ernest, Southeastern district sales manager of the Caloric Stove Co. and Paul Phelps, Alabama repre-

sentative of this company, put on a demonstration of "Gas vs. Electricity," and by accurate gauges and timing devices proved the superiority of gas over electricity in all phases of cooking.

George Kollock, William Wallace Co., gave a dissertation and demonstration of the use of double wall vent pipe, showing its practicability and economy; and Stanley Wolkenheim,



Luke Ernest and Paul Phelps, of Caloric Stove Co., put on a gas vs. electricity cooking demonstration at the Alabama association meeting in October.

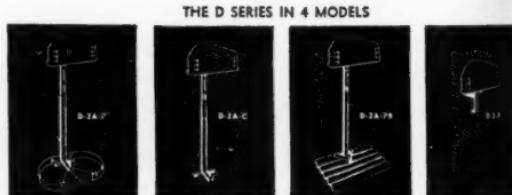


LEASED APPEARANCE helps greatly to sell LP-Gas Service. That's why we have spent time, effort and money to make Stampings Housings the kind of units that you can install with pride and satisfaction.

You can profit now by supplying your trade with the type of housing that looks good on the job—and provides maximum safety. Select from this complete line the Stampings model that best meets your requirements. Profit with good design to increase your business and satisfy particular customers.



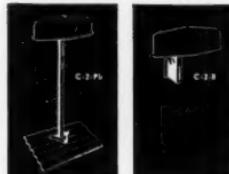
Made of asbestos and concrete, these bases stand up under weather and abuse. Corrugated surface provides drainage and ventilation. Size is 21 1/2" wide by 30" long. You drill holes as required.



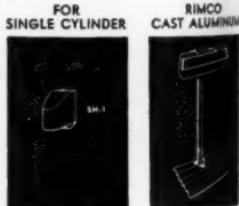
THE D SERIES IN 4 MODELS

MODEL D-2A-P. A complete unit for 2 cylinders. Comes with hood, post and base inc. MODEL D-2A-C. A complete unit for 2 cylinders. Comes with hood, post, but no base inc. MODEL D-2A-PB. A complete unit for 2 cylinders. Comes with hood, post and prefabricated base. MODEL D-2B. Wall bracket type for 2 cylinders. Comes with hood, bracket and screws.

THE C SERIES IN 2 MODELS



MODEL C-2B. A 2-cylinder unit with hood, post and prefabricated base. MODEL C-2B. A 2-cylinder unit with hood mounted on bracket.



MODEL SH-1. A single cylinder unit for vd mounting. Brass pin hinge and necessary screws.

MODEL RIMCO R-1-TB. A cast aluminum housing for 2 cylinders. Comes complete with hood, post and prefabricated base.

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general sales manager of the Permaglas Heating Division of A. O. Smith Corp., by combining showmanship with practical facts, gave a talk on the romance of selling water heaters.

Max Fetty, sales promotion and advertising manager of Delta Tank Co., expressed his opinion of the value of advertising by saying:

"The small business man should advertise in a consistent manner. Business people today are not advertising to a grandstand, but to a passing parade. If you can't afford a big ad, make it a small classified ad and do it every day. It's an investment."

Additional highlights of the convention included a talk by B. B. Turner on the growth of the L. P. gas industry; coverage on some of the misunderstood phases of the motor fuel tax; the advantages from the dealer viewpoint of group insurance and group hospitalization programs; and the suppliers' viewpoint of supply and demand.

Illinois

Promotional activity in the L. P. gas field was the theme of the recent Illinois L. P. Gas Assn. convention, Oct. 3-4, at the St. Nicholas hotel, Springfield, Ill.

One of the important highlights of the meeting was the acceptance of the recommendations of the legislative committee on the model L. P. gas container law which prohibits the marking, defacing, filling, or refilling of containers for L. P. gas without the authority of the owner and sets a penalty for the violation of this ruling. The newly elected president, John Norris, Cylindro Gas Co., Quincy, appointed a committee to expedite the presentation of this law to the state legislature.

The speakers and their topics at this convention included: Ted Carrow, Cribben and Sexton Co., Chicago,



At the Illinois convention (left to right): John Norris, president and Bennie Schniepper, vice president, Illinois LPGA; John E. Kelderhouse, secretary, North Central District, LPGA.

"How To Be Gas Range Happy"; George Bortner, Shellane Div., Shell Oil Co., Chicago, "How To Be Gas Water Heater Happy"; Floyd Thelen, The Scaife Co., Chicago, "How To Be Happy"; and John Guardiola, The Weatherhead Co., Cleveland, "What Promotion Means To Us."

Tony Crowley, McNamar and Crowley, Inc., Salem, acted as master of ceremonies illustrating his confidence in the future of the L. P. gas business with timely observations; and Howard White, executive vice president of the LPGA, complimented the group on their progress in the industry in the state of Illinois.

Besides President John Norris, the following officers were elected: vice president, Bennie Schniepper, Blue Flame Gas Co., Olney, and secretary-treasurer, G. W. Chapman, Chapman Gas Co., Chester.

Mississippi

Dewey Dearman, Fowler Butane Co., Inc., Hattiesburg, was elected president at the annual fall meeting

of the Mississippi L. P. Gas Dealers Assn., succeeding Lewis Graeber, Graeber Brothers, Inc., Marks.

Other officers elected were H. H. Whitworth, Oxford, vice president of the northern district; Earl Hanna, Jackson, vice president of the central district; Wallace Hope, McComb, southern district; and Fred Gunter, Kosciusko, secretary-treasurer.

The principal speaker at the convention was Joseph Delfausse, chief engineer, Neptune Meter Co., New York City.

During the meeting the members voted to hold their annual convention in Biloxi next April 19-21.

Nevada

At the annual convention of the Nevada LPG Dealer's Assn., Tonopah, Sept. 20-21, the following officers were elected:

President, George Gottschalk, Carson Nu Gas Co., Carson City; vice president, W. W. Dudley, City Gas & Appliance, Ely; and secretary-treasurer, Charles Cavanaugh, Cavanaugh Bros., Tonopah.

New Mexico

The seventh annual convention of the New Mexico L. P. Gas Assn., attended by approximately 170 people at the Hilton hotel, Albuquerque, was primarily directed toward management. Burt Muncy, Jr., Artesia Gas & Appliance Co., Artesia, was elected president, and Ben Clark, Fergas, Inc., Clovis, secretary-treasurer.

The speakers and their topics at this meeting included: E. S. Kleinmann, Dearborn Stove Co., Dallas, Texas, "Measuring"; J. H. Brinker, A. O. Smith Corp., Milwaukee, Wis., "The Place of the Small Businessman in Our Economy"; H. H. Pike, The Coleman Co., Inc., Ft. Collins, Colo., "Retail Selling"; T. H. Anderson,

Skelgas Div., Skelly Oil Co., Lubbock, Texas, "Flame Cultivating For Summer Loads."

Additional speakers were Charles Corken, Corken's Inc., Oklahoma City, Okla., "Why Don't They Tell Me These Things"; Max Hood, New Mexico Pharmaceutical Assn., Albuquerque, N. M., "Customer Relations," and B. J. Fahs, Remington Rand Co., New York, N. Y., "The Importance of Customer Records in LPG Operations."

Outgoing President Brad Watkins presided at the meeting.

New York

The Liquefied Petroleum Gas Assn. of New York is planning a meeting to be held in Syracuse, N. Y., in the latter part of January.

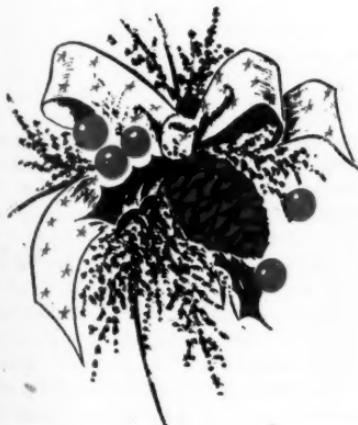
Marcy Coyle has been appointed chairman, and he is planning an interesting program.

Ohio

By J. A. SCOTT

The fall meeting of the Ohio Liquefied Petroleum Assn. opened at the Fort Hayes hotel, Columbus, Nov. 11, with a registration of 125. During luncheon J. B. McGuff, president, welcomed the membership and introduced Carl Sorby, the George D. Roper Corp., as the first speaker.

Mr. Sorby emphasized that, in selling, the dealer's attitude must be positive and constructive at all times. The dealer's interest in selling, his enthusiasm, his desire to get ahead is all important. He should be persuasive and persistent, every day trying to improve his sales approach, voice, and speech. He should be a self manager, planning his work and working his plan. He should present his product



*One of the many joys of this Season
is the opportunity to put aside the routine
and customs of every day business and
in real sincerity wish our friends a . . .*

MERRY CHRISTMAS

BUEHLER TANK & WELDING WORKS

3990 PACIFIC BLVD., LOS ANGELES 38, CALIFORNIA



New Ohio officers: Standing (left to right)—J. B. McGuff, president, the Verkamp Corp.; A. C. Johnson, trustee, A. C. Johnson and Son; Forrest Fram, vice president, Fram Heating Inc. Seated—H. E. Brumby, Suburban Gas and Appliance; E. E. Opdyke, Opdyke Bottled Gas Co.; and Robert Martin, O. K. Gas Distributing, trustees.

and service in a logical and convincing manner, showing what they will do for the customer. He should develop the ability to get others to work for and with him.

Mr. McGuff next introduced Max Fetty, advertising and sales promotion manager, Delta Tank Manufacturing Co., who spoke on the topic, "Advertising—A Plan for Tomorrow's Sales." Mr. Fetty pointed out: "Any dealer who slights his love affair with the buying public will pay dearly for that mistake when the mating season comes again." The alert L. P. gas dealer will plan today for tomorrow's sales by putting his advertising on the same plane as the sign above his

store. As the sign is there day in and day out, so should the advertising be before the public day in and day out, playing not to a grandstand but to a continually passing parade.

During the business meeting following Mr. Fetty's remarks plans for the state fair exhibit were discussed and consideration was given to holding the next association meeting at Indian Lake instead of Columbus. At the conclusion of the business meeting the members adjourned to the cocktail lounge for a social hour provided by appliance manufacturers.

During the breakfast forum on the second day, Forrest Fram, Fram Heating, Inc., introduced the topic,

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"Refrigeration and Water Heating." In discussing refrigeration Bernard P. Collins, Servel, Inc., demonstrated how the dealer can increase his load without getting additional customers by devoting time to the sale of gas fueled refrigerators. To sell the customers who are already on his books the dealer has only to familiarize himself with the essential facts given in booklets distributed by the manufacturer. He will find that he can match all the competition's selling points and still have one left the other side does not have—silence.

Build Water Heater Load

Mr. Fram next brought up the subject of water heating, and F. A. McFerran, Ruud Manufacturing Co., pointed out that the entire country is still under 25% saturation in water heating. Since the dealer makes money not only from the sale of appliances but from the load appliances build, he should consider ways of getting as many appliances in use as possible. In the case of water heaters terms, as well as rentals, have been a big help in producing conditions under which the public can afford the means for using L. P. gas for heating water.

However, the dealer can never rely upon terms, alone, where the cost of electricity is not too high. In such cases he can base his sales on recovery. A gas flame does not have to rely upon units of resistance to heat up. The heat is ready, making the ideal means for the recovery required by automatic washers and dish washers. With recovery as a selling point we do not have to apologize for cost.

Following the forum J. W. Riley, Suburban Motor Freight, of Columbus, spoke on "Proposed Ohio State Ton Mile Tax." Mr. Riley showed that the state of Ohio has repeatedly tried to put into effect a tax on all trucks in the state except those used

by farmers. The tax will be assessed on the basis of multiplying the gross weight of the truck by the total mileage. Trucks will be taxed the same, empty or loaded.

The tax puts a premium on honesty, will be impossible to put into effect, and will either eliminate or jeopardize reciprocity. The L.P. gas dealer is in the trucking business, and the proposed tax affects him as well as anyone else. Mr. Riley concluded his remarks by saying that all dealers can help keep the proposed tax from being levied by acting as a group under the direction of Otis Skinner, attorney for the association.

After a humorous speech, "I Don't Care," by Henry Linton, President McGuff adjourned the meeting until spring.

Tennessee

At its 1953 convention, the Tennessee L. P. Gas Assn. elected James S. Jones as president. Mr. Jones, vice president of the Tennessee Liquefied Gas Co., was vice president of the Tennessee LPGA last year.

Besides belonging to the Tennessee group, Mr. Jones' firm is also a member of the Arkansas and Mississippi state associations and of the national LPGA.

Other new officers of the Tennessee association include L. A. Varnadow, Hydratane Gas Co., Athens, vice president; and W. G. Petty, W. G. Petty & Son, Inc., Memphis, secretary-treasurer.

California Group Takes Stand Against Tax-Free Cooperatives

Due to the increasing encroachment of tax free cooperative organizations into the field of retail L. P. gas distribution in direct competition to established tax producing privately

owned businesses, the board of directors of the Liquid Gas Dealers Assn. of California passed the following resolution at a San Francisco meeting on Sept. 26:

"The Liquid Gas Dealers Assn. go on record as recognizing the danger of these tax free enterprises and expect all members of the Senate of the United States and all members of the Congress of the United States to act to cause these presently tax free enterprises to be taxed on an equal basis with private enterprise."

Northeastern Section, LPGA

Representatives from all along the Atlantic seaboard and from numerous other states, as well, attended the

annual Northeastern District meeting of the Liquid Petroleum Gas Assn. in Atlantic City, October 30.

Many of those attracted to the LPGA session also visited the appliance exhibit of the Gas Appliance Manufacturers Assn. and participated

in the annual convention of the American Gas Assn. at Atlantic City auditorium.

Featured speaker at the LPGA meeting was Col. Sidney F. Mashbir, U. S. Army (Ret.), a leading intelligence officer of World War II. Addressing the luncheon session, Col. Mashbir gave his listeners an insight into the methods used by Communists to undermine governments from within in order to take them over. He also discussed the Red timetable for future aggression.



MARK ANTON

Morning speakers were Lee A. Brand, Empire Stove Co., Belleville Ill., and chairman of the National Committee for LP-Gas Promotion, whose talk appears elsewhere in this issue; Mark Anton, president, Suburban Propane Gas Corp., Whippoor, N. J.; and Howard D. White, LPGA executive vice president, Chicago. On the afternoon program were Don H. Davidson, sales promotion manager, dryer division, Whirlpool Corp., St. Joseph, Mich.; W. F. DeVoe, Phillips Petroleum Co., Bartlesville, Okla.; Gordon M. Jones, sales manager, United Gas Improvement Co., Philadelphia; and George R. Webster, Pyrofax Gas Co., New York (see Page 57).

Ross Roberts, manager of the Pyrofax Gas Co., New York, presided at the meeting in the absence of Walter A. Naumer, LPGA district director. Herbert Bartholomew, Phillips Petroleum Co., New York, was chairman of the arrangements committee.

Tank Fabricators Form Independent Association

In January, 1952, the Liquefied Petroleum Gas Tank Fabricators organized an informal committee

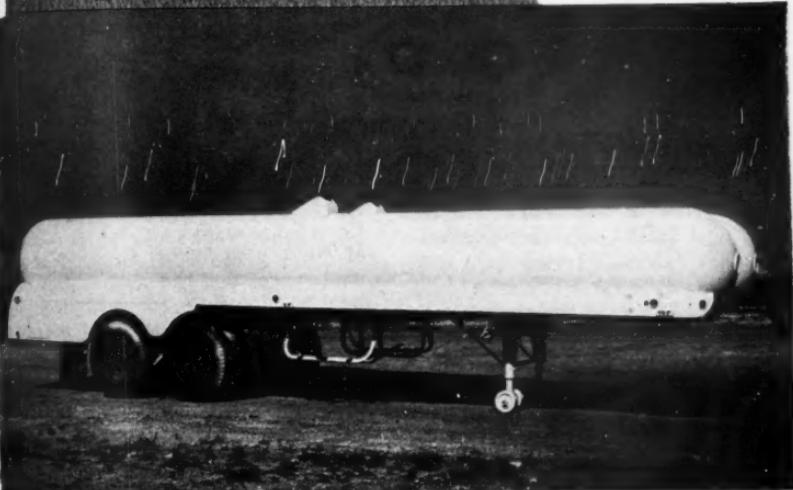
group and opened an office in Washington, D.C., employing William H. Brooks as executive director to assist the fabricators in various matters affecting the industry and provide a direct representative in Washington in matters relating to governmental

agencies. The office has functioned



WM. H. BROOKS

BACK UP TO PROFITS



HOOK ON TO THIS MONEY-MAKING LMC TRANSPORT

You're out in front in the race for greater profits when your truck is pulling this streamlined LMC Tank Trailer. Like all LMC units, it's designed and constructed for greater safety, longer life, and LOW-HAUL COST-PER-MILE.

High tensile steel and precision fittings assure a superior safety factor, light weight, low center of gravity, large capacity pumps and valves allow you higher pay loads.

TRY
ON
THE

LMC BUDGET PLAN

The LMC twin-barrel is available in capacities from 3000 to 6000 gallons. For transports or home delivery units, remember LMC means Low Mileage Cost.

LMC
Lubbock Machine & Supply Co.

BOX 1138
PHONE 3-4631
LUBBOCK, TEXAS

under this informal committee arrangement since January.

In a meeting of the membership held in Memphis Oct. 14, the group decided that a permanent association should be formed and the program initiated in January should be continued on a permanent basis. A Delaware charter has been obtained and a board of directors elected, composed of the following:

M. G. Purpus, president, Black, Sivalls & Bryson, Inc., Kansas City, Mo.; B. R. Sprayberry, vice president, Texas Boiler & Machinery Co., Dallas; A. J. Hall, secretary-treasurer, Burnham Corp., Irvington, N.Y.; Frank W. Row, A. O. Smith Corp., Houston; T. G. Tackett, National Butane Gas Co., Inc., Memphis, Tenn.; R. A. Gasal, Butler Manufacturing Co., Kansas City, Mo.; S. W. Greene, Bagwell Steel Co., Bessemer, Ala.

Mr. Brooks, who has been in charge of the association activities in Washington since the office was initially opened, continues as executive director.

"Four-Bit Club" Builds Christmas Sales

BY far the most effective means of increasing Christmas layaway sales is to "dramatize" the layaway system—according to O. T. O'Leary, head of Dixie Appliance Co., Waco, Texas.

During the 1951 Christmas season, Mr. O'Leary applied this essential dramatization by developing his "Four Bit Club." From Nov. 1 onward, small 2-column, 3-inch ads were run in Waco newspapers, which urged "Join Our Four Bit Club—Any of the following items will be held on a 50c deposit." Listed were a dozen major appliances and some 24 small appliances, which

Dixie Appliance Co. heavily emphasizes for Christmas giving.

The choice of 50c as the layaway sum was of much psychological value, inasmuch as it attracted many customers who must budget their gift purchasing carefully, and also provided a "yardstick" for regular layaway payments. "Almost every person who signed up in the Four Bit Club made it a policy to come in at least once a week to pay an additional 50c," Mr. O'Leary said. "In fact, the majority of the gifts which we turned over to purchasers a day or two before Christmas, were paid for at the rate of 50c per payment. Some of course, paid more, but the entire promotion was built around the 50c piece, and we feel that we attracted scores of customers who would pay little or no attention to the normal use-our-layaway type of advertising."

Setting up the "Four Bit Club" was a simple operation, inasmuch as each layaway purchaser simply received a small card, with "Four Bit Club" printed at the top, and handy columns below, in which simple checkmarks and initials could be used to receipt each layaway payment until the total amount was paid out. Holiday layaway sales results were far better than in any previous year in the company's history, the Texas dealer declared.

ICC Vacates 1943 War Order For Intrastate Truck Operation

The Interstate Commerce Commission has vacated its long-standing regulation of 1943 governing the transportation of "explosives and other dangerous articles," applicable to every common, contract and private carrier by motor vehicle engaged in intrastate commerce.

This order was originally issued in the World War II emergency and affected LPG dealers who transported L. P. gas and cylinders.



1. *Sustained Accuracy.*
2. *Low Maintenance.*
3. *A complete liquid metering System that eliminates vapor problems.*
4. *Meters and accessories all in one unit.*
5. *Built for LP-Gas pressures.*
6. *Plus printed tickets.*

YOU WROTE THE TICKET

for this
time-saving
LP-Gas Meter!



. . . and that's why more Red Seal LP-Gas "Compact" meters are now in use on tank trucks than any other brand . . . helping LP-gas dealers make fast, accurate deliveries . . . with big, easy-to-read numerals keeping tabs on the gallons delivered.

The Red Seal is an approved truck metering system complete in one package. No extra accessories to buy. Famous for simplicity, sustained accuracy and low maintenance. Designed specifically for LP-gas pressures. Available with direct-reading or Print-O-Meter registers. Ask for Bulletin 779-L.

**NEPTUNE METER COMPANY • 50 WEST 50th STREET
NEW YORK 20, N. Y.**

Branches

Atlanta • Boston • Chicago • Dallas • Denver
Los Angeles • Louisville • No. Kansas City, Mo.
San Francisco • Portland, Ore.

Canadian Factory
Toronto 14, Ont.

88-8

DECEMBER — 1952

105

PRODUCTS

Broiler-Oven Burner

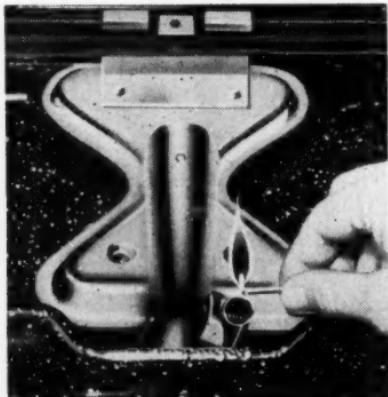
HARDWICK STOVE CO.
Cleveland, Tenn.

Model: EquaFlo

Description: The EquaFlo burner directs the live gas flame over the whole broiler area and heat over the entire oven surface. It eliminates cold and hot spots. Flame is focused into all four corners of the broiler.

Adjustment of the burner for air and gas is made at the front. This enables easier, more accurate adjustment, and does not require the serviceman to reach across a red-hot burner. Although it is held rigidly in place with a steel flange, the burner is easily removed for cleaning.

The match lighter on the Equa-Flo is located directly in the front of the oven for easy reach. It lights the burner instantly, even when the gas is barely turned on. Dropped matches fall through to the broiler pan and cannot clog the lighting.



106

Water Heater

RUUD MANUFACTURING CO.
Pittsburgh 1, Pa.

Model: Duo-Temp Laundrymaster

Application: Provides hot water of two different temperatures from a single tank.

Description: From the 180° outlet, a separate line is run to the automatic clothes washer and dishwasher. The average water temperature in the water tubs, even after heat losses due to radiation and the cooling effects of clothes and dishes, is found to be from 160° to 170°. This heat provides positive bacteria destruction, speedy drying of dishes, and maximum whiteness retention in the clothing. The second source of water, with a moderate temperature of 125°, goes into other household faucets for general home use.

Additional features include a rust-proof Ruud-Monel tank, "spring-speed" burners for fast recovery, and a low-turbulence, cold water injector.



BUTANE-PROPANE NEW DECEMBER

Internal Safety Relief Valve

SELWYN-LANDERS CO.

4709 E. Washington Blvd., Los Angeles 22.

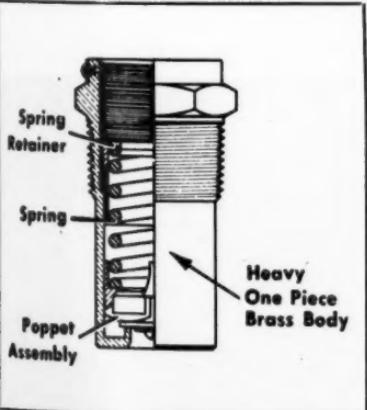
Model: SL-445M—1 in. Tank Connection—DxU 10.

SL-445M—1½ in. Tank Connection—DxU 16.

Application: For use in mobile and domestic tanks where there is possibility of damage to an external valve from contact with outside objects.

Description: Valve is designed with all functioning parts located within the shell of the tank, so no recessing is necessary. Made in two sizes, to insert in tanks threaded for 1 in. and 1½ in. safety relief valve bodies.

Available in pressure settings for container types 200, 225 and 250. Can be supplied with pipe-away adapter for transferring discharged vapor.



Restaurant Range

WOLF RANGE & MANUFACTURING CO.

5731 So. Alameda, Los Angeles

Model: Challenger

Application: This range is designed for volume cooking in medium-sized or smaller food serving establishments.

Description: Some of the features of this range include heavy welded angle-iron frame; large top cooking surface; porcelain enamel open top sections; large, low, temperature oven, which measures 24 in. by 22 in. by 14 in.; non-clog open top burners, automatic safety oven lighting; 6-in. high, adjustable legs for easy cleaning; and extra strong counter-balanced oven doors.

The "Challenger" is available in Japan black or stainless steel finish, single or double oven units, and a wide variety of models. It may be installed flush to the back wall, thus removing behind-the-stove dirt traps.





Domestic Range

PREMIER STOVE CO.
100 S. 16th St., Belleville, Ill.

Model: DKOL-38

Description: This AGA - approved range has a large storage compartment and a smooth-working drawer. The adjustable smokeless 2-piece broiler is the pull-out type with drop front, and it has a well for draining fat away from the flame. The large Fiberglas insulated oven is equipped with Pyrex vapor-seal glass in the door, a Robertshaw thermostat control, two non-tilt oven racks and an oven light which has a switch located in the back-splash panel.

Efficient top cooking is obtained with non-clog Harper-Wyman burner heads, giant type front burners, standard back burners for saving gas, and instant top burner lighting with fool-proof automatic pilot lighter. The splash panel is fitted with a

built-in fluorescent electric light, an efficient timer for accurate cooking, and an electric outlet for plugging in appliances.

Finished in acid-resisting Titanium porcelain enamel, the range is 38 in. wide by 26 in. deep by 46 in. high, and it has a shipping weight of approximately 220 lbs.

Gas Lamp

INDEDE, INC.
P.O. Box 148-A, North Hollywood, Calif.

Model: Indede Gas-Lite

Application: Especially designed for installation in trailers, motels, cabins and camp areas.

Description: According to the company, this lamp produces a soft, blue-white, non-glare illumination that rivals electric lighting for brilliance and economy. Mounting the lamp is accomplished by means of two screws which fasten it securely to any vertical support such as a wall, post or door frame. Connected to the gas supply by a $\frac{1}{8}$ in. line,

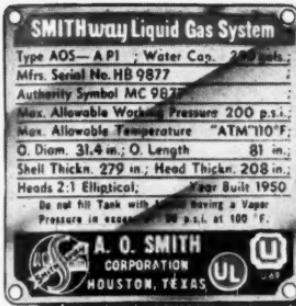


A. C. with of a gauge much later few make System

Basic Domestic lighting and

Affiliate

DEC



Sell the **SYSTEM**

You would buy!

A. O. Smith welded construction, with bottom opening to assure you of a "water-free" tank, visible float gauges at eye level, easy filler hose attachment, direct down-flow regulator and pig-tail . . . these are but a few of the outstanding features that make the A. O. Smith Liquid Gas System easiest to service, finest to own.

Basic design of exclusive "Vapor Dome" gives you maximum convenience, accessibility and safety of end fittings, means time-saving servicing and streamlined eye-appeal.

Assurance of quality is in the easy-to-read name plate which every A. O. Smith Liquid Gas System displays in the "Vapor Dome" . . . to give both customer and serviceman full information on the type, capacity, allowable pressure and temperature, dimensions, UL seal, and U-69 compliance.

You offer superior dependability when you sell A. O. Smith Liquid Gas Systems . . . with a written guarantee attached to the tank at the factory . . . backed up by 78 years of engineer-

ing and manufacturing experience.

Nation-wide warehousing, with direct-to-your-yard delivery; complete assortment of advertising material to increase your sales . . . *everything* to help you sell the A. O. Smith System at a profit . . . is yours as an A. O. Smith dealer.

A. O. Smith Liquid Gas Systems are available for early delivery in standard sizes up to 3500-gallon capacity. Orders for larger sizes are also accepted.



A.O.Smith

LIQUID GAS SYSTEMS

Atlanta • Chicago 4 • Dallas 2 • Denver 2 • Houston 2
Los Angeles 22 • Midland 5, Texas • New Orleans 12
New York 17 • Philadelphia 3 • Pittsburgh 19
San Francisco 4 • Somerville 1 • Springfield, Mass. • Tulsa 3
Washington 6, D. C.
International Division: Milwaukee 1



Seasons Greetings and Best
Wishes for the New Year!

the unit is ready for immediate operation.

The lamp requires no generating or hand pumping. Once the illumination level has been set by the manually controlled exterior knob, the light gives safe, non-flicker illumination independent of weather conditions or altitude.

Constructed of highly polished aluminum, with brass fittings, this lamp is especially designed to withstand shock, and it supports the mantle to give it long life.

Product Information

Empire Stove Co., Belleville, Ill., announces a complete line of new models of Empire gas floor furnaces and Empire recessed heating units (wall heaters). These new floor furnaces and new Empire gas circulator heaters, standard console type, radiant top discharge type, and cool cabinet front discharge type will be ready for distribution in January, 1953. By the fall of 1953, a new suspended type gas central heating unit, a new basement gas designed central heating unit, a new closet type gas central heating unit and a perimeter gas central heating unit will be marketed.

The new gas floor furnaces are of the shallow type and embody all the present, plus additional features of the Empire DeLuxe floor furnace line. They are available in 25,000, 35,000, 50,000 and 70,000 Btu input for all kinds of gases.

The new recessed gas heating units are available in 25,000 single wall and 50,000 double wall units. All three types of circulator heaters will be available in 30,000 40,000, 50,000 and 65,000 Btu input.

Company officials announce that in the future all efforts of manufacturing by the company will be confined to producing gas heating appliances. The company will discontinue manufacturing gas ranges.

Eclipse Fuel Engineering Co. has made it possible to change from oil to gas with the flick of a switch with their new Fyr-Matic burner. This burner is self-contained, needs no extra parts, is easily installed and is fine for steam boilers, water or air heaters, ovens and many other process or space heating operations.

Another piece of equipment manufactured by this company is the McKee Eclipse Series "LP" air-gas proportional mixer which automatically provides correct mixing at all times by stopping the up-and-down fluctuations of excess air or gas, thus insuring combustion efficiency and fuel savings.

Descriptive bulletins may be obtained on either of these items by writing to the Eclipse Fuel Engineering Co., 985 Buchanan St., Rockford, Ill.

The Lovekin Water Heater Co., Philadelphia, Pa., presents in the latest model of its water heater an exclusive feature known as "Lazy-Lite." According to the company, this feature simplifies lighting the heater and eliminates fumbling, kneeling on the floor, and groping inside the heater due to a tube running to the burner from a point flush with the wall of the heater.

The fully-welded, heavy gauge steel tank, galvanized inside and out, is built to withstand a test pressure of 300 lbs.

Additional features of the Lovekin water heater include a 5-way combination control consisting of safety pilot, thermostat, pilot filter, pilot cock



These are the reasons
METALBESTOS
is the **best** gas vent

1

FAST, EASY INSTALLATION

Sturdy, die-formed couplers slip together readily without forcing. No cement, mastic or banding material needed. Adjustable lengths and elbows eliminate costly cutting and fitting; speed installation.

2

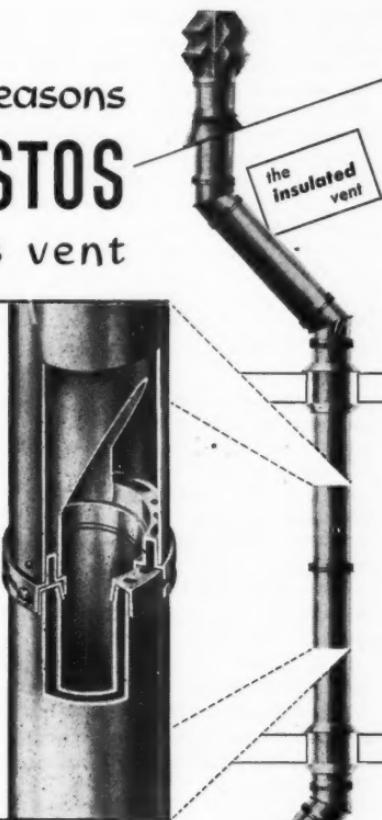
SAFE, EFFICIENT VENTING

Double-wall Metalbestos gives a "hot stack" quickly and continuously for complete removal of fumes — yet air-insulated outer pipe remains cool even after prolonged operation. Precision-made couplers seal both inner and outer pipes . . . cannot pull apart to cause dangerous leaks.

3

DURABLE AND DEPENDABLE

All-aluminum, sturdy construction eliminates costly replacements due to damage during shipping, handling or installation. Metalbestos will not crack or shatter, and is highly resistant to corrosion — forms a rigid, dependable venting system.



for the **best** job use

METALBESTOS



Write today
for Free VENTING MANUAL
This useful manual, "Venting
of Gas Appliances," contains
important rules and helpful tips
on approved venting practices.
No cost or obligation.

Write today to Dept. M



METALBESTOS DIVISION

WILLIAM WALLACE COMPANY • BELMONT, CALIF.

and main gas cock; 100% safety pilot; dial-type thermostat; and pilot filter of high grade mineral wool fiber. The gas pressure regulator insures heater efficiency by rationing gas to the burner and the blanket type insulation of mineral wool fibers keeps water hot until ready for use. The drain cock is easily accessible even when the heater is installed in a crowded location.

Lovekin water heaters are available in 20, 30, 40, and 60-gallon sizes. Hourly recovery capacities at 100° temperature rise are: 21, 25.2, 26.9 and 37.8 gals.

The Mine Safety Appliances Co. has developed a portable instrument known as "MSA Explosimeter, Model 2," which is used in detecting hazardous gas or vapor-air atmospheres. Provided with this light, compact instrument, powered by flashlight batteries, is a sampling line of synthetic rubber, recommended for use in remote sampling of atmospheres which may be explosive.

Full details on the MSA Explosimeter, which has been approved by Underwriters' Laboratories, Inc., are available upon request to the company at Braddock, Thomas and Meade Sts., Pittsburgh 8, Pa.

Newly Published

The United Petroleum Gas Co., Minneapolis, has published a new brochure entitled, "The United Story," which relates United's progress in the L. P. gas industry and describes the company's facilities in detail.

How the company maintains a fuel supply, keeps inventory records and directs its tank car and truck fleet, and field representatives is explained. The company's bulk and standby plant engineering is given an interesting

treatment along with revealing pictures.

A copy of "The United Story" may be secured by writing to the United Petroleum Gas Co., 806 Andrus Bldg., Minneapolis 2.

"Automatic Controls for Gas Water Heaters," the 1952-1953 catalog of the Minneapolis-Honeywell Regulator Co., has been released. It gives detailed information on gas water heater controls including V5120, the newest control for water heaters, and V5121, designed primarily for applications on which the control is concealed.

Complete information, including a general description, specifications, installation and lighting instructions, service and adjustment, a parts' list, and instructions for ordering, is given for each control.

Copies of this catalog are available from the company at 8775 Mettler St., Los Angeles 3, Calif.

Downingtown Iron Works, Inc., Division of Pressed Steel Tank Co., Milwaukee, Wis., has released its new 20-page catalog, "Plate Fabrication and Heat Exchangers," which is a condensation of some of the pertinent and useful data compiled from the company's last three catalogs.

Featured is a detailed heat exchanger section, including performance and mechanical design, tube sheet layout with tables, standard construction, and illustrated examples. Full information is given regarding Downingtown facilities, manufacturing equipment; welding procedure qualifications; and typical examples of plate fabrication.

A partial analysis of the ASME code for unfired pressure vessels is also highlighted. Address Downingtown Iron Works, Downingtown, Pa.

The motor truck division of International Harvester Co. has released a new brochure, entitled "The Big Test," which relates the progress that the company has made since it started in 1907. It covers the development of a new truck, a new part, a new unit and modifications in a step-by-step manner, discussing how an idea takes form; the art work and design; drafting, design analysis, specifications; making the mock truck and the pilot models, and finally the testing and product development. This last section thoroughly describes the tests that a truck and its parts undergo before they are accepted by the company.

A copy of "The Big Test" may be secured by writing to Engineering Department and Laboratories, Motor Truck Division, International Harvester Co., Fort Wayne, Ind.

A new folder has been released by the Minneapolis-Moline Co. describing their three L. P. gas tractors, Models "Z", "U", and "G". Photographs of these tractors and specifications of each model are featured. The pictures include scenes of the tractors at work in the field with a 4-row cultivator, 5-bottom mold-board plow, wheatland plow, and a planting attachment. A full description of the new 340-cu. in. engine in the Model G tractor is also given.

Another highlight of this folder is a map showing the number of L. P. gas bulk plants in each state in the United States as determined by the Butane-Propane News industry census.

Propane Heats Phone Stations in Winter

A successful pioneering activity, carried on jointly by Pyrofax Gas Co. and the Stewart-Warner Co., in providing automatic heat for unattended

dial phone stations is being demonstrated in northeastern states. With the rapid transition to dial phone service, these stations are being installed in a great many localities.

Special heating problems in connection with these stations arise from the nature of the electrical equipment, and the design and construction of the buildings. The buildings must be air tight to prevent dust and dirt from settling on the intricate dial controls, so no windows or ventilating openings are used. There is only one door to permit entrance of a service man. The heater must not burn up the oxygen in the room, nor discharge products of combustion into the closed space.

The room temperature must be maintained to at least 40°, which is warm enough to keep the switches and controls working, but it is also necessary to bring the temperature of the room up to 70° quickly in case it is necessary for a service man to be in the building. This requires an adequate thermostatic control, sealed combustion chamber, and a positive venting system which will discharge all products of combustion outside the building under any condition of weather and wind.

The amount of gas consumption will depend on the size and construction of the building, efficiency of the heating system, and weather conditions. Average fuel requirements reported for the Pyrofax installations in northern states, using the S-W "Safe-Aire" wall type heaters, range from 12 to 20 cylinders (250 to 450 gallons). Dependability of the heating equipment and the fuel supply is of utmost importance.

Extension of these unattended dial phone stations can be expected to provide a worth-while auxiliary market for fuel throughout most of the United States.



CALENDAR

All associations are invited to send in dates of their forthcoming meetings for this calendar.

1952

DECEMBER

Dec. 3—Florida L. P. Gas Assn. Location either Ocala or Gainesville.

Dec. 3-5—Agricultural Ammonia Institute Annual Convention and Trade Show. Baker hotel, Dallas, Texas.

Dec. 4-5—LPGA Board of Directors meeting. Jung hotel, New Orleans, La.

Dec. 9—Wisconsin LPGA. Park hotel, Madison.

1953

JANUARY

Jan.—New York LPGA, Syracuse.

Jan. 18-19—Arkansas Butane Dealers Assn. Mid-year meeting, Little Rock.

Jan. 28—Texas Butane Dealers Assn. Mid-Winter meeting. Baker hotel, Mineral Wells.

FEBRUARY

Feb. 10—New Jersey Liquefied Petroleum Gas Assn. Annual convention, Atlantic City.

Feb. 23-24—New Jersey LPGA, Ritz-Carleton hotel, Atlantic City.

MARCH

March 23-25—Southeastern District Convention. Biltmore hotel, Atlanta, Ga.

APRIL

April 13-14—Assn. of Nebraska LPG Dealers. Annual convention. Fontenelle hotel, Omaha.

April 15-17—Midwest L. P. gas service School. Iowa State College, Ames, Iowa.

April 16-18—Florida L. P. Gas Assn. Annual meeting. Palm Beach.

April 19-21—Mississippi L. P. Gas Dealers Assn. Annual convention. Edgewater Gulf hotel, Edgewater Park, Miss.

April 29-30-May 1—NGAA Annual Convention. Rice hotel, Houston, Texas.

MAY

May 3-6—National LPGA convention and trade show. Conrad Hilton hotel, Chicago.

May 20-22—Gas Appliance Manufacturers Assn. Annual Meeting. The Greenbriar, White Sulphur Springs, W. Va.

JUNE

June 8-9—South Dakota Liquefied Petroleum Gas Assn. Alexander Johnson hotel, Rapid City.

June 16-18—Missouri L. P. Gas Assn. Annual convention and trade show. New Jefferson hotel, St. Louis, Mo.

June 24-26—Texas Butane Dealers Assn. Annual convention and trade show. Baker and Adolphus hotels, Dallas.

Superior Performance



Advantages of Standardization

... that's why the
GAS INDUSTRY specifies
RELIANCE REGULATORS

The Gas Industry derives a double advantage from the use of RELIANCE REGULATORS; first, it has the best REGULATOR equipment available; second, it obtains the many advantages of standardization.

The interchangeability resulting from standardization means a smaller and more flexible inventory of spare parts. It minimizes the number of test and inspection fixtures. It makes for quicker and easier training of maintenance personnel through the need for familiarization with fewer products.

For longer life, greater dependability, better performance and lower maintenance — **YOU CAN RELY ON RELIANCE REGULATORS.**

Bulletins are available on all types of Reliance Regulators



HPH

For sensitive regulation and position lockup.



BKR

Primary or secondary unit equipped with internal relief valve.



BP-15

Low-volume regulator for precision control of outlet pressures.



DV-200

Series Differential valves.



RV-200

Series Relief valves.

RELIANCE REGULATOR DIVISION

1000 MERIDIAN AVENUE, ALHAMBRA, CALIFORNIA



**AMERICAN
METER COMPANY**

INCORPORATED 1836

Federal Regulations Cover Ceiling Prices, Employe Pay

The following information on recent Federal regulations was released in early November:

16-A. Posting of Ceiling Prices Required

"Amendment No. 4 to CPR 34 effective Oct. 27, 1952, requires the posting of ceiling prices for services sold at retail (installation service charges, etc.). Not later than seven days after you receive an official poster you must post your ceiling price in a prominent place. If you do not receive an official poster, you must, not later than November 26, 1952, obtain an official poster and post your prices. New service prices must be posted within 30 days after they are first established."

16-B. Customary Bonus Permitted

"Amendment 4 to General Wage Regulation No. 14 and General Salary Order 15 repeat last year's rulings on Christmas and year-end bonuses. Customary bonus practices followed in past years are permitted. If a bonus was not given before, or a lesser bonus was paid, a bonus of up to \$40 can be given. Approval is not required."

16-C. \$1 an Hour Wage Authorized

"General Wage Regulation 22 and a series of Questions and Answers tells how hourly wages may be increased up to an hourly wage of \$1 an hour without prior WSB approval. This carries out the requirements of the 1952 amendments to the defense Production Act."

Legislation Notes

Kentucky has enforced Regulation GL-17, which requires that L. P. gas dealers who operate storage facilities for special motor fuel which are

equipped with pump and hose to deliver fuel to the tanks of vehicles operated on the public highways must secure special fuel dealers' licenses and submit to the Department of Revenue the monthly reports required by the provisions of the special fuel tax law.

The attorney general of Maryland has issued two rulings covering the application of the use tax to companies selling L. P. gas. One of these states that companies selling propane are not entitled to an exemption from the use tax on the use of the tanks in which the propane is stored because these companies are not engaged in the business of rendering service. The attorney general's office also ruled that the tanks are not being used within the meaning of the word "compounding" so as to exempt the use of the tanks from the use tax.

The fire marshal division of the Michigan state police issued a revision of its L. P. gas regulations effective last June 23. Copies are available from the Michigan state police.

Rhode Island has adopted Pamphlet 58 as the official rules governing installation of L. P. gas equipment.

Producers May Pass on Added Costs of Sales

It has been announced by the Office of Price Stabilization in a letter to the Lone Star Gas Co., Dallas, Texas, that authorization will soon be granted to L. P. gas producers to pass on their added costs in the same way resellers of the fuel are now permitted to do.

Producers are currently permitted to pass on their added costs on sales at tank car levels. The new order would allow them to pass along these increased expenses at other sales levels when acting in a "reseller capacity."

200 Converted Taxis Save \$30,000 per Year Over Gasoline

By JACK POMRENING

IT takes a lot of courage for a large transportation company to switch over to a new and comparatively untried fuel, but the Boynton Taxi Co., of Milwaukee, accomplished this transfer successfully and realized a total savings of almost \$30,000 a year. Mr. Boynton, Jr., now the owner of the the largest propane taxicab fleet in America, is so satisfied with the

results of the new fuel that he believes many transportation systems will switch over in the not too distant future.

Mr. Boynton's plan to use propane originated in the early spring of 1950, shortly before the outbreak



A Dix adaptor unit installed on one of the taxis, showing the piping arrangement.



The downtown fueling area of Boynton Cab Co. with the 2500-gallon storage tank in the background. The tank truck, of 4000-gallon capacity, is used to transport propane from the large storage tanks on the outskirts of Milwaukee.

of hostilities in Korea. The decision for a lengthy study and experimentation period had to be shelved when the "police action" began, because the company feared a shortage or rationing of needed materials, but Mr. Boynton gathered all the available information concerning the use of propane as fuel for automobiles. Although this was quite limited, he decided immediately that a savings could be had through the use of propane and instigated plans for installing the necessary equipment.

In the early summer of 1950 the first Boynton cab, a 1950 Plymouth, was converted to propane. At the

beginning, various types of carburetor systems were tried, until finally the Dix was chosen to be used on all future conversions.

Figuring in all labor and material costs, an expenditure of approximately \$150 per car was needed for a conversion.

Mr. Boynton figures it takes approximately 35,300 miles of travel before a taxi makes up the original cost of conversion through fuel and repair savings. By the second year of operation, these savings on each car will then be additional profit.

After 10 cabs had been converted and had been in operation for a short time, lack of materials caused the

SELL INTERNAL COMBUSTION ENGINE CONVERSIONS!

...It's The No. 1 Factor Boosting LPG Winter Quotas!

10 KEY IDEAS TO HELP YOU!

1. FUEL COST SAVINGS Are First in Importance
2. ENGINE OPERATION Is Sooner and More Efficient!
3. OIL CONSUMPTION Is Amazingly Reduced! Up to 80%!
4. OIL DILUTION and CARBON DEPOSITS Are Practically Eliminated!
5. ENGINE WEAR Has Been Provably Reduced Up to 75%!
6. REPAIRS ARE SLIGHT — Due to Absence of Sludge, Varnish and Gum!
7. LONGER ENGINE LIFE by Easy Average Ratio of 2 to 1!
8. LESS "DOWN TIME" ... More Continuous Service Without Overhauls!
9. REPLACEMENTS OF LPG Parts and Equipment Are Practically Nil!
10. ADEQUATE SUPPLY Assures Continuous, Uninterrupted Service!

SELL these advantages of LP-Gas in Internal Combustion Engines and you'll SELL conversions of all types of mobile and stationary equipment. The above facts have made Internal Combustion the fastest growing segment of the LP-Gas Industry.

Truck and engine driven equipment manufacturers are now producing LP-Gas engines. This new, expanding market is now in the making. Round-out this new market by selling conversions. It's the PROFIT-WAY to increased summer LP-Gas sales and boosted winter quotas.

Nor-Tex Custom-Built LPG Conversion Tanks

There are Nor-Tex Conversion Fuel Tanks now in use on trucks, busses, cabs, pleasure and business vehicles, tractors and farm machinery, pumps, construction and earth moving equipment, materials handling equipment, pipeline and drilling equipment ... in fact on all types of Internal Combustion Engines.

You buy custom-built Nor-Tex fuel tanks at "production line prices." Just specify the model of the machine you are converting and where you plan to install the tank; front, rear or side. It comes complete with mounting brackets and fittings. Just bolt it on and connect it up.

PREPARE NOW to serve this Rich LPG Market!

Install compact, Nor-Tex portable LP-Gas filling stations at strategic locations in your area. The Nor-Tex "PONY" ... and Nor-Tex "SCOUT" are individually designed to meet every requirement. Operate them yourself ... place them "on-the-job" ... or let your highway service station dispense LP-Gas for you.

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North Texas Tank Co.
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Manufacturers of Fine LP-Gas Equipment

virtual abandonment of Mr. Boynton's plans. Due to materials shortages, the company had to reconvert the 10 propane cabs to gasoline and temporarily halt expansion plans. The confidence in propane held by the company was exhibited, however, in the rapid conversion back to propane as soon as supplies were available. From that time on, the program for the use of propane continued without further delay until, today, all of the more than 200 cabs owned by the Boynton Co. are equipped for propane.

When the new fuel was first being tried, all fueling was accomplished by the use of one tank truck with a capacity of 1000 gallons. As

more and more cars were converted it became impossible to continue with this method.

First, a 2500-gallon storage tank was installed on the lot. A dispenser and pump were added which greatly simplified the fueling of the cabs. Next, land was purchased on the outskirts of Milwaukee, and two 30,000-gallon capacity tanks were installed, thus allowing the company to buy propane direct and keep these tanks filled by tank car rail service.

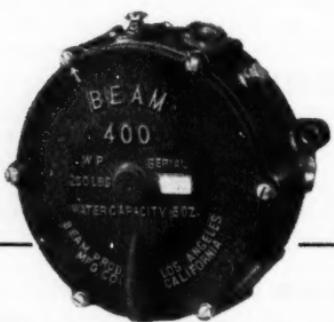
Propane is then transported by truck to the smaller storage tank on the Boynton lot. A new truck able to transport 4000 gallons has just been purchased by the company.

To facilitate handling the propane an additional dispenser and pump were installed on the main lot. The breakdown factor has been almost entirely removed at Boynton's for cars may refuel at either pump, direct from the storage tank, or from either truck. Thus trouble may develop at one or several of the dispensers without causing a stoppage of traffic from the lot.

Fueling Time is Faster

It is interesting to note that fueling time with propane consumes a small fraction of the period necessary when using gasoline. A cab equipped with a standard 18-gallon tank may be completely refueled in a little less than 20 seconds. When over 200 cabs must be "gassed up" twice a day, each 12-hour shift, this saving in time becomes a valuable consideration.

When viewing the storage and dispensing area, one is impressed with the simplicity of the installa-



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Butane-Propane Carburetion
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Trucks, Buses, Tractors
Automobiles, Stationary Engines

There is a BEAM for all LPG engines. Various carburetors available; including straight LPG carburetors, combination carburetor adapters, and spud-in blocks for all type installations.

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- Complete REO Gold Comet LPG Engine for replacing old, worn-out engines in your present trucks (any make)



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REO MOTORS, INC., LANSING 20, MICHIGAN

DECEMBER — 1952



If you're a supplier or hauler of LP-Gas, you know all the advantages of your product. You know that LP-Gas gives greater fuel economy.

Why not profit from all these benefits yourself... haul LP-Gas with LP-Gas. Convince your prospects that you're really sold on what you're selling. It's the key to greater sales, greater savings, and greater profits!

Now, for the first time, you can haul LP-Gas in REO trucks specially designed and engineered for the exclusive use of LP-Gas. The new REO Gold Comet LPG engine is already making trucking history. It makes full use of LP-Gas fuel characteristics, and has demonstrated outstanding fuel and maintenance savings in grueling field tests.

For hauling LP-Gas, the REO 142 hp Gold Comet LPG engine surpasses everything else on wheels.

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- ★ National Carburetion for all gasoline engines.
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- ★ Flare tube fittings and copper tubing.
- ★ Propane hose, L.P. pumps, all accessories.

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National Carburetion Co.
BOX 3075 SHAWNEE, OKLA. PHONE 316

tion. Practically all the piping is underground, and the dispensers look like simplified gas pumps.

Outside of the dispensers no specialized equipment is used on the main lot. Standard 3-hp., 3-phase, fan-cooled motors, in conjunction with ordinary pumps are used in operating the storage tank facilities.

Extremely careful records were kept by Mr. Boynton during the early months of propane use, and today he has a reasonably accurate estimate of the savings propane has brought to the company.

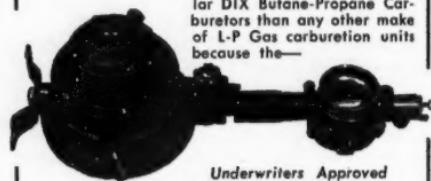
Taking the 10 cars equipped to burn propane, Mr. Boynton compared them, as far as all operating expenses were concerned, with 10 gasoline fueled cabs. The results were somewhat astounding, even to Mr. Boynton. He believes that although the results seem accurate, further comparative studies must be made before accepting these figures as irrefutable facts.

The gasoline burning cabs were driven 772,248 miles and averaged 10.6 miles per gallon, while the propane-driven cars traveled 822,444 miles and averaged 9.85 miles per gallon, a loss in mileage of 7½%. Due to the lower price of propane, however, there was an overall savings of 7% in fuel costs.

Careful recording of oil expenses showed the propane cabs way out in front principally because they needed an oil change only every 7500 miles as against 2500 miles for the gasoline fleet. The reasons for this are that the fuel burns without solid residues of any sort, and dilution of the oil with unburned fuel is impossible.

MORE TAXIS

are equipped with the popular DIX Butane-Propane Carburetors than any other make of L.P. Gas carburetion units because the —



Underwriters Approved

DIX Butane-Propane CARBURETORS

For cars, trucks, tractors, Sta. Engines.

Dix B-P Carburetors are so popular

BECAUSE — the DIX is —

The Simplest of them all
The Easiest to Install
They're no trouble at all

Immediate Delivery from Stock

Write for Dealer Information

DIX MANUFACTURING CO.

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Export: 301 Clay St., San Francisco, Calif.

When all the operating expenses, including overhaul materials, labor, fuel and oil, were added together, these were the results: It cost the gasoline-propelled cabs \$0.02820 for each mile traveled. The propane fueled cars were running for \$0.02395 a mile, a savings of 13.8%. This multiplied by the seven million miles traveled each year by the Boynton cabs totaled an amazing \$29,750. If depreciation on the propane equipment was added to the cost per mile of operating expenses, the savings was brought down to \$25,900, still a tidy amount garnered through the use of propane as a fuel.

As for operating comparisons, there seemed little difference in the two fuels. In fact, most drivers pre-

ferred propane to gasoline because of the lack of motor noise and smoother operation under loads. There is no doubt that propane is easier on the motor than gasoline. Evidence for this statement is clearly brought out by the fact that three mechanics were dropped from the Boynton payroll even though the number of cabs in the fleet has steadily increased through the years. Cars that previously were overhauled after 20,000 to 25,000 miles of driving, are now traveling half again that distance before needing repair work.

There is a slight problem in winter driving with cars using propane. When the Wisconsin climate kicks up and the temperature slides into the minus numbers, cabs using

IT'S AN AMERICAN "Better-Bilt" TANK!

Be sure to use AMERICAN Tanks on all LP tractor and truck conversion jobs. AMERICAN LP motor-fuel tanks are built in sizes from 10 to 30 inches in diameter. AMERICAN tractor-tailored tanks replace gasoline tanks and are available for most popular makes of tractors; come complete with steel brackets that are drilled to fit. New type construction: better designed, better built. Liquid line tube inside tank is steel, and braced at top, virtually eliminating possibility of breakage.

AMERICAN "Better-Bilt" Tanks are Sold Through Qualified Distributors or Direct from Manufacturer.

LP Tank Specifications and Prices Gladly Sent on Request. Write TODAY!



- New design — Larger — 32 Water Gallon Tank — Easy to Install
- Complete with All Brackets. No Tractor Brackets to Cut or Alter
- Won't Obstruct Operator's View

American TANK & MFG. CO.

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423 So. Industrial Blvd., Dallas, Texas

propane are sometimes quite difficult to start. During these periods a tow truck is kept in readiness on the lot and a slight push seems to solve this difficulty immediately.

At any rate, the troubles involved are over-balanced by the added savings incurred through the use of propane. So perhaps the prophetic beliefs of the Boynton Cab Co. concerning the future expansion of propane usage in the transportation industry will come true at an early time.

Pasture Irrigation Pays Dividends in Tennessee

Irrigating pastures with an engine-driven sprinkling system in Tennessee has produced an increase of \$121 an acre above operating cost, according to A. G. Van Horn, superintendent, and R. H. Lush, dairy specialist, who conducted the tests at the Lewisburg Dairy Experiment Station of the University of Tennessee.

These men report that watered pasture provided grazing for 47% more "cow-days" than did similar land without irrigation. Cows on the irrigated plots produced 48% more milk, and 52% more butterfat.

Gross value of milk from the cows on the irrigated pasture was 55% more, and the net return for milk was 37% greater after \$2.45 per acre was deducted for each acre-inch of water supplied to the pasture. From April to November, 24 inches of "artificial rain" was applied per acre, at a total cost of \$59.67.

Irrigation is being practiced more and more in areas where natural rainfall has been the sole dependence for soil moisture in years gone by, but where periodic droughts have hampered production. The hundreds of thousands of farm ponds which are being de-

veloped under the soil conservation program are making the set-up perfect for a great increase in single-farm irrigation.

The ideal power unit for the farm irrigation system is the propane-powered engine. Its operating cost is low. There are no power lines to run, no standby charges when the pump is not in use, and in many cases the engine may be used for other purposes around the farm when it is not required for pumping water.

Chicago Buys 100 New Propane-Burning Buses

The Chicago Transit Board authorized in October the purchase of 100 propane-fueled buses from the Twin Coach Co., of Kent, Ohio, at a total cost of \$1,839,500, delivered in Chicago. Each of the buses will seat 51.

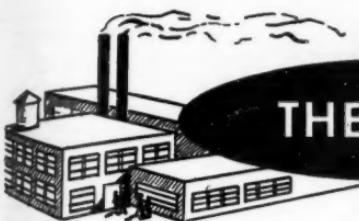
The Twin Coach quotation, which averages \$19,395 per unit, was the lowest of bids submitted by six bus manufacturers.

Chicago Transit Authority has been operating propane-fueled buses since late in 1950 when the first of a fleet of 551 of these completely odorless vehicles was placed in service.

Delivery of the 100 new buses—which is expected to begin within six months—will raise the total of new transit vehicles acquired under the CTA modernization program to 2,915 units, at a total cost in excess of \$60,000,000.

Bottled Gas Company Newly Organized in Virginia

McHone Bottle Gas Corp., Elkton, Rockingham County, Va., with maximum authorized capital stock of \$50,000, has been formed to deal in gas. A. B. McHone is president. Laird L. Conrad, of Harrisonburg, Va., pro-



L. L. PETERS

Magic Chef, Inc., St. Louis, has appointed L. L. Peters as general sales manager, gas ranges, effective in October.

According to M. W. Pender, vice president in charge of sales, this newly created office comes as the result of greatly expanded

company operations, coinciding with the tremendous increase in the nationwide use of natural and liquefied petroleum gases.

Louis J. Sarosday has been appointed vice president, engineering, of the **J. B. Beard Co.**, Shreveport, La., manufacturers of heavy steel products, according to J. Pat Beard, president and general manager.

Mr. Sarosday was formerly with Blaw-Knox Co., of Pittsburgh, where, since 1937, he has been manager of engineering and sales of the company's steel forms department and chief engineer of the construction equipment and machinery department.

Tony Abbot, of Birmingham, Ala., has been appointed sales representative in Alabama for the Beard com-

pany. Mr. Abbot was formerly with Dunbar Co., of Birmingham and is well known by L. P. gas dealers throughout Alabama.

H. C. Gurney, sales manager of the Janitrol domestic-commercial division of Surface Combustion Corp., announces the appointment of Otto C. Gerhardt as Janitrol sales representative in the St. Louis area.

Mr. Gerhardt will work with C. H. Langendorf, district manager, in the sale and service of the complete line of Janitrol heating equipment, maintaining his headquarters in the St. Louis office of the company.

Ransome Co., Emeryville, Calif., announces the opening of a branch at Anderson, Calif., complete with 10,000-gallon propane plant and combination office, showroom and warehouse.

This brings Ransome California sales offices to five, the others being located at Emeryville, Sacramento, Redding and Fall River Mills. Ransome Co. of Nevada has offices in Reno and Carson City.

Brunner Manufacturing Co., Utica, N. Y., has appointed A. L. "Bud" Haldeman as Brunner district manager in the Cleveland territory. This comprises the northern half of Ohio, western Pennsylvania, northwestern

Handy Binder

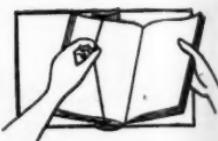
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News



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Send check for \$2 for each binder or \$2.50 from countries outside U.S. Add 3% Sales Tax for California orders, and 3½% Sales Tax for Los Angeles City residents.

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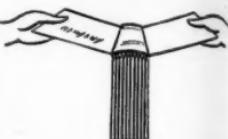
BOUND IN A FLASH

Slip open magazine under elastic band and it's bound firmly into place. Can be removed just as quickly.



OPENS FLAT

The curved backbone and patented binding system allow each magazine and page to open flat.



BINDS SECURELY

Patented Elasto Cord supports weight of each magazine separately, no mechanical device to get out of order.



FOR PERMANENT BINDING

Plexon plastic covered wire and instructions supplied with each binder. Replaces elastic cord for permanent binding.

section of West Virginia, and the entire Michigan lower peninsula.

Mr. Haldeman succeeds Steve Han-na who has been with the Brunner organization for the past 16 years and is retiring this month.

F. W. Carter, president of Peerless Manufacturing Corp., Louisville, Ky., announces the purchase of a two-story building immediately adjacent to their main building.

The building is of brick and reinforced concrete construction containing 75,000 square feet of floor space.

This building will be utilized for additional manufacturing and local storage for Peerless gas-fired heating equipment and fireplace fixtures.

The offices of W. R. (Shep) Allen, crude oil purchases and sales representative for Cities Service Oil Co. (Del.), have been moved from Corpus Christi, Texas, to Houston.

Mr. Allen has offices in the Cities Service suite in the Mellie-Epelson Bldg.

R. C. Boehm, formerly manager of the General Controls Co., factory branch office in Birmingham, Alabama, has been appointed assistant manager for both the appliance and heating divisions of the California automatic controls manufacturer.

Mr. Boehm will be headquartered in General Controls' new plant in Skokie, Ill., and will cover the territory east of the Mississippi.

In September Cribben and Sexton Co. started offering its Universal gas ranges on a rental basis to multiple apartment house owners, Harold E. Jalass, vice president and sales director, announces.

First test of the "Universal Rent-

A MUTUAL
Wish to all . . .

Merry
Christmas
and a
Prosperous
New Year

★ We at Mutual
wish to extend to
our host of
friends through-
out the LP-Gas
industry a . . .
happy Christmas
and joyous New



Joseph Fagan
President

Year. It is our sincere hope that
the new year will bring you pros-
perity and happiness.

MUTUAL
Liquid Gas Equipment Co., Inc.
3600 West Imperial Highway,
Inglewood, Calif.

Makers of propane gas torches and
furnaces for industry.

a-Range Plan" will be limited to the Chicago area and will be available only to owners or managers of buildings having 24 or more kitchen units. Several buildings have already contracted for this new service.

Because in basic functioning, a gas range virtually never wears out, it has been replaced far less often than other appliances. Thus, among the plan's advantages is the impetus it is expected to give to replacement of old stoves with gas range models of latest design and modern service features.

Crown Stove Works announce the appointment of Willard W. Johnson, 2200 University Ave., St. Paul, as direct factory representative in states of Minnesota, North and South Dakota.

Mr. Johnson will replace the A. J. Reiber Inc. organization who formerly covered this area for Crown.

Crown Stove also announces the appointment of Roy G. Robinson, Sr., Lockport, N. Y., as district manager in western New York.

Mr. Robinson has been associated with the range and appliance industry for many years.

Edward E. Krieger, sales engineer, has been appointed to the Ohio territory by the Milwaukee Gas Specialty Co. His duties will include engineering work at the Cleveland laboratory of the AGA on behalf of his company and of his company's customers.

Mr. Krieger maintains headquarters at Cleveland and succeeds Don R. Weidenfeller, who has been transferred to the Milwaukee office.

Butane & Propane

Carter

Producers of high quality
Liquefied Petroleum Gases Since 1931
Wholesale Only

THE CARTER OIL COMPANY
TULSA, OKLAHOMA

Madden Brass Products Co. announces the appointment of Ed S. Johnson as representative in its Minneapolis territory.

Mr. Johnson will cover the states of North and South Dakota, Minnesota, the northern half of Iowa, and the northwest portion of Wisconsin. He is currently serving as secretary of the Twin Cities Chapter of the Refrigeration Service Engineers Society.

Winfred G. Ellis, president of the Ellis Transport Corp., Houston, Texas, was host to a group of company drivers and their wives at a dinner-meeting Sept. 20.

Mr. Ellis made the presentation of the awards to the following transport drivers: W. M. Massie, Henry Struve, Eugene Teitjen, David Lockhart, W. G. Davenport, Vay E. Hart, and H. E. Vickers. These safety awards represented from one to six years of continuous transport driving without a chargeable accident.

Mr. Ellis also presented the transport drivers with bonus checks of varying amounts based on the number of months spent in the service of Ellis Transport Corp.

Felix Elkins and Charles Henderson, Pan American Casualty Co., commended the Ellis Company and the individual honorees on their outstanding record.

Prentiss Wabers Products Co. announces the following personnel changes:

J. O. Ellis, general manager and director of the firm since January, 1950, has been elected president and re-elected as director. The new president, who also continues as general manager, has served the company since 1940 in many management capacities, including advertising and

PAUL SAYS . . .

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WE GUARANTEE all equipment advertised to be new unless otherwise specified. PRICES F.O.B. LIBERAL, KANSAS. Pictures and literature on request. WE TRADE. WE FINANCE.

1951-F6—Ford 2 ton, 2 speed, 825 tires, heater, low mileage, new equipment includes 1430 twin U69-250 W.P. pump, P.T.O., piping, 50 ft. hose, ICC lights and reflectors, Fed. tax included. Immediate delivery \$3238.00
 50 ft $\frac{1}{2}$ " vapor hose fitted add \$37.00

Neptune printo meter..... \$ 308.00

1360 twin or single delivery truck tanks, U69-1950 code—250 W.P.—complete with tank fittings, prime painted, plain skirting with tool box built in. These tanks can be shipped by truck or rail. Save by doing your own installing. Immediate delivery \$1225.00
Built in custom fuel tank add. \$6.50

Pittsburgh meter "760", small reset \$ 285.00

1952 Chevy., Ford or G.M.C. 2 ton, 2 speed, 825x20 rear tires, 1460 W/G twin tank U69-250 W.P. with pump, P.T.O. piping, 50 ft. 3/4" hose, ICC lights and reflectors. Fed. tax included \$4118.00
 Pittsburgh "760" meter installed with back check and differential valve add. \$36.50

Viking pump w/mechanical seal K-190 \$ 99.00

1952—Dodge HHA 2 ton, 2 speed, 825 tires, 3000 miles, heater, tachometer, combination carburetion, 1430 twin tanks U69—250#, piping, ICC lights and reflectors, 50 ft. 3/4" hose, white enamel paint. This truck is 3 months old. Immediate delivery \$408.00
 Small Pittsburgh meter and differential valve installed \$153.50

Roper Pump 2A \$ 96.75

1951—Chevy. 2 ton, 2 speed, 825 tires, new equipment includes 1430 W.G. twin tanks U69—250 W.P., P.T.O. pump, piping, 50 ft. $\frac{3}{4}$ hose, ICC lights and reflectors, Fed. tax included. Immediate delivery.....\$3538.00 Combination Carburetion installed add \$110.00

2" Jenkins L.P.G. valves.....	\$21.92
Climax vaporizers (tractors, trucks, etc.)	\$ 8.25
Franklin L.P.G. pump grease, 1½ can	\$ 3.25
Roney R-60 bottle regulators 50-60 C.F.M.	\$ 2.75
Griswold 202 hot plate. 2-burner.....	\$ 7.48

Paul L. Maxwell

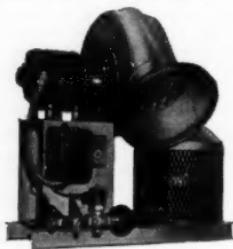
SOUTHWEST GAS EQUIPMENT CO.

Liberal, Kansas

**Hotter Heat per Penny
with**

Kilbury HEATER
"homogenized heat" [©]

**Suspended Industrial Gas Heater — No
Vent Required*. Will Heat Up To 2000
square feet for 3¢ per hour!**



It Must Be Good . . .
Thousands sold! Performance proved!
Used by leading firms!

Every day, more and more markets, factories, warehouses and offices are recognizing this revolutionary development in low-cost heating comfort, and are having it installed within a short time after inquiry. Get the facts from your dealer . . . and get them straight!

*Approved as an unvented heater, circulator type, for commercial and industrial use. Is not affected by the State Housing Act.

**ALSO AVAILABLE IN ALL-ELECTRIC
230 AND 440-VOLT MODELS
FOR USE WITH OR WITHOUT DUCTS**

**Write to Dept. B P
for Explanatory
FREE Booklet.**

KILBURY MFG. CO., INC.
14529 HAWTHORNE BLVD.
DEPT. B P * LAWNDALE, CALIF.

selling. He succeeds Ralph Wiltrot, who resigned from the presidency he had held since 1948. Mr. Wiltrot, actual managing head since 1923, is now chairman of the board.

Michael Woolf, sales manager since 1923, a member of the board of directors and vice president since 1926, and director of sales since 1949, has retired from all but the vice presidency of the company. The sales department is now headed by D. F. Abel, who carries the title of general sales manager.

A new company, Eclipse Fuel Engineering Co., of Canada, Ltd., has been formed to handle sales and service on "Eclipse" products in Canada, according to executives of the parent company, Eclipse Fuel Engineering Co. of Rockford, Ill.

Numerous standard combustion and gas distribution products and components will be locally stocked to speed shipment.

New offices for the company have been established at 705 Bloor St., West, in Toronto. The office will be managed by Gordon E. Bouvier.

L. E. (Bud) Lewis was recently appointed as northern district sales representative for the L. J. Mueller Furnace Co., Milwaukee, manufacturers of Mueller Climatrol heating and air conditioning equipment. He will take over the territory of George Hase who has been recalled to Mueller's home office for special assignment. The territory includes North and South Dakota, Minnesota, upper Michigan and the northern portion of Wisconsin. He will headquartered in St. Paul.

Other recent Mueller appointments are George O. Webb as sales representative in Washington and Oregon, with offices in Seattle, and D. W. Karr will cover North Carolina, most

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News

of South Carolina and Virginia, and a portion of southern West Virginia from Charlotte, N.C.

The L. J. Mueller Furnace Co. is now celebrating its 95th anniversary. It is one of the nation's oldest manufacturers of heating and air conditioning equipment, making a complete line of units for nearly every type and size installation and for every fuel, gas, oil and coal.

W. Roy Widdoes, director of Industrial Relations at Lukens Steel Co. since 1949, has been appointed to the president's staff there, according to an announcement by Charles Lukens Huston, Jr., president. He will be secretary of the management committee, and will also take charge of certain phases of future planning for the company.

William C. Robinson, currently assistant director of industrial relations, will become acting director, succeeding Mr. Widdoes.

Louis C. Ball has been appointed acting region manager of the Houston, Texas, operations of the Rheem Manufacturing Co., it has been announced by C. V. Coons, Rheem vice president and general manager.

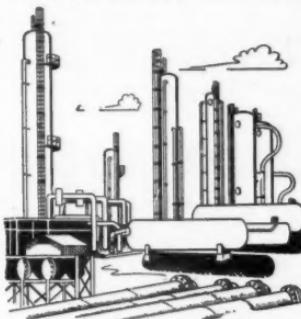
At the same time Parr Krumb was appointed works manager of the Houston plant.

W. C. MacFarlane, president and general manager of Minneapolis-Moline Co., has announced that Donald C. Steinhelber has been elected secretary of the company. Mr. Steinhelber, who has been associated with the firm for 29 years, will continue in his capacity as controller in addition to his duties as secretary.

Additional appointments include: Wayne H. MacFarlane, manager of

CITIES SERVICE

LIQUEFIED PETROLEUM GAS



- A DEPENDABLE SOURCE
- UNIFORM PRODUCTS
- A CAPABLE SUPPLIER
- TWENTY-FIVE YEARS EXPERIENCE

... in L.P. gas also
Cities Service means
Good Service

CITIES SERVICE OIL CO.

Delaware

Bartlesville, Okla.
Chicago, Illinois

Other Sales Offices

Cleveland

St. Paul

Kansas City

Toronto



**Underground
STORAGE**

*When The Weather is Hot
and Sultry is The Time to
Store Your Gas

Cause When the Frost is
on the Pun'kin None is
Available—
Even for Cash.*

Don't Delay Another Day
Act Now to be Ready for '53.

Contact G. H. "Smoky" Billue

**Security Underground
Storage Company**
615 Sunset Drive Phone
Wichita Falls, Texas 24067

the Louisville, Ky. plant; K. N. Cervin, assistant secretary of the company; and W. F. Foss, assistant controller.

Herwart Werker has been appointed director of research for American Radiator & Standard Sanitary Corp. by Theodore E. Mueller, president.

At the same time two other members of the firm's research staff, Kurt Krafft and Robert B. Duggan, were promoted.

Pressure Products Corp. and its subsidiaries Prepo Corp. and American Tempo Corp. have consolidated their executive offices, general sales offices, design and development laboratory and manufacturing facilities in new and larger quarters at 8225 North Christiana Ave., Skokie, Ill.

B. J. Lattner, former vice president and heating sales manager, has been elected executive vice president and general manager of Century Engineering Corp., Cedar Rapids, Iowa.

W. S. Moellering has been named to succeed B. J. Lattner as heating sales manager.

Natural Gas Customers Use Propane For Cleanliness

Floyd Hicks, of the Blue Grass Electric Co., Harrisburg, Ky., (now reformed and serving the rural residents of three counties with bottled gas) reports that he is serving customers in the city, where natural gas is available in the utility pipe lines, with bottled gas for cooking.

The customers are willing to pay the higher price for their cooking gas, because they say that it burns cleaner, leaving the kitchen looking

better, and eliminating the need for frequent laundering of the curtains. These same customers use the city gas for water heating and in some cases in vented space heaters, as the fumes go out through the vent and do not smoke up the rooms.

Mr. Hicks says that in nearly all of these cases the housewives had become accustomed to the cleanliness of propane while they were living in rural areas, and after they moved to town they were unwilling to settle for less.

Dealer Develops Eye-Appeal Sign

By HILDA GALLOWAY

WANT to get more punch and eye-appeal into advertising signs?

Here's a clever idea developed by Herbert M. Kay, president of Kay Co., heating, refrigeration and appliance dealers, Waco, Texas.

Ordinary signs very seldom accomplish the advertising job for which the user hopes, Mr. Kay indicates, inasmuch as each must compete with literally hundreds of other signs, no matter where it is used. However, he found, after some experimentation, the eye-catching sign pictured has shown many times as much eye-attracting value as the more common variety.

The sign, 6 feet high by 3½ feet wide, is actually a "blow-up" of a company letterhead, executed in perfect scale, with green, red and black paints utilized to duplicate the firm's standard letterhead. Mounted on either stiff white cardboard or metal, depending upon the spot at which they will be used, the signs have steadily

INCREASE YOUR
PROFITS WITH THE
PHILGAS

5-WAY PROFIT PLAN!



1. High Quality Product
2. Dependable Supply
3. Experienced Engineering
4. Effective Marketing Help
5. Operational Assistance

PHILLIPS PETROLEUM COMPANY

Sales Department • Bartlesville, Oklahoma

Offices located in Amarillo, Tex., Atlanta, Ga., Chicago, Ill., Denver, Colo., Des Moines, Ia., Pontiac, Mich., Indianapolis, Ind., Kansas City, Mo., Milwaukee, Wis., Minneapolis, Minn., New York, N. Y., Omaha, Nebr., Raleigh, N. C., St. Louis, Mo., Tulsa, Okla., Wichita, Kan.

First See

GRIFFITHS

for

Conversion Parts

We can supply a wide assortment of spuds, orifices and other parts for converting domestic and commercial equipment to any type gas. Also, a complete line of repair parts for all types of gas meters.

Write for catalog.

**E. F. GRIFFITHS
COMPANY**

350 E. Walnut Lane, Philadelphia 44, Pa.
*Serving the Gas Industries
For Over 40 Years*



TRUCK TANKS

Twin or single barrel—Light weight—Low in cost—Full or semi streamlined—ASME U69.

*Built to Your
Specification and Size*

**BAGWELL-GENERAL
STEEL CO., INC.**

Box 391 • Sapulpa, Okla.

shown 300% or more better selling value than more standard types.

That pictured herewith, aimed at boosting sales of central heating equipment, lists in a left-hand column several nationally-known brands car-



"Blow up" letterhead presents new type of highway sign that attracts extra attention.

ried in stock, with the firm's slogan at the top. Copy points out, "Dear Homeowner: Did you know that you can now have a central heating unit completely installed in your home for as little as \$9.59 per month? . . . Ask us for details. . . . Comfortably yours, The Kay Co."

Inexpensively turned out, the advertising "enlargements" of company letterheads have shown better selling efficiency at roadside points, in the windows of the showroom, and at various home shows, state fairs, and similar events.

McHone Gas Co. Now In Operation

McHone's Bottled Gas Corp. is in operation with main offices in the McHone store building near McGaheysville, Va. According to A. B. McHone, president and general manager of the company, the firm is equipped to fill all needs for bottled gas over a wide area. A storage warehouse has been built near the McHone store. The firm has truck capacity to make delivery at any point on a 24-hour schedule, from the office or the bulk plant at Staunton.

Mr. McHone has had 20 years' experience in the gas industry with Stone and Webster at Roanoke and with the Consumers Utilities Companies of Harrisonburg. He has also operated a store bearing his name which is located a short distance east of McGaheysville.

New NBFU Pamphlet No. 58 Now Available to Dealers

The new 1952 edition of NBFU Pamphlet No. 58 is now ready for distribution.

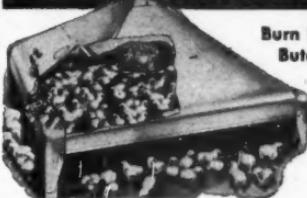
Copies of this pamphlet may be obtained by writing to the National Board of Fire Underwriters at 85 John St., New York 7; 222 West Adams St., Chicago 6; or Merchants Exchange Building, San Francisco 4.

Howard's Butane Granted 25-Year Charter in Oklahoma

Howard's Butane-Propane Co., Inc., Elk City, Okla., has been granted 25-year charter of incorporation, it has been announced.

Incorporators are Anna B. Howard, John D. Howard, Elk City, and Earl W. Morton, Clinton, Okla. Capital stock was listed at \$100,000.

BROWER GAS BROODERS



Burn Natural or
Butane Gas

Important Selling Features!

Chicks are SAFE—Robertshaw 100% Shut-off Valve turns off gas if pilot goes out. 1" fibreglass insulation between deflector plate and heater top conserves and directs heat against baffle plate. Radiator, deflector and baffle plate spread heat evenly. Thermostat controlled. Draft-proof ventilation. Adjustable legs. Thermometer. Two sizes—60" and 72" conopies.

Write for catalog and low dealer prices.

BROWER MFG. CO.

461 N. 3rd

Quincy, Illinois

World's Largest Line of Poultry Supplies



- The accepted standard odorant for natural or liquefied petroleum gas—gives sure but harmless warning.
- Purified—Moisture-free—PROTECTS FIXTURES. Meets all 15 qualifications of National Bureau of Standards.

Mallinckrodt®

MALLINCKRODT
CHEMICAL WORKS

Mallinckrodt St., St. Louis 7, Mo.
72 Gold St., New York 8, New York



ADAMS

CHEERFULATORS

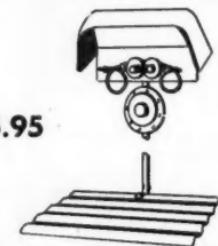
Fully automatic with capacities to handle moderate to heavy heating loads. CHEERFULATORS supply finest heating qualities at low gas consumption rates. Four models available.

Write today for full information.

ADAMS BROS. MFG. CO., INC.

1500 NORTH AVE., W. PITTSBURGH 33, PA.

GALVANIZED HOOD, STAND & BASE



\$5.95

This sturdily built galvanized hood assembly is made to take the roughest of handling. RUST-FREE, the hood requires no painting. A 1 1/4" angle iron stand connected to the solid corrugated asbestos base completes the unit. Packed 10 to a carton.

Two cylinder regulator hookup—\$4.65 extra.

HOME GAS EQUIPMENT CO.

1301 Carnegie Ave., Cleveland 15, Ohio

Santa Claus is coming
'tis the season of good cheer
Our wish for each and everyone
Merry Christmas, GLAD NEW YEAR

REGO LP GAS EQUIPMENT

Rochester Criterion Gauges—Hose and Fittings—Weco-Trol (automatic control) 1 C C Cylinders—Okadee Valves



**GAS
EQUIPMENT
SUPPLY CO.**

127 ELLIS ST. N. E. ATLANTA, GA.

**NEW one-man
CYLINDER
TRUCK**

\$18.95



No. 77 Cy-
inder and
Appliance
Truck

To carry Butane, Propane cylinders. Wheel guards and strap holders permit handling of stoves, appliances, water-heaters, crates, etc. 10x2.75 semi-pneumatic tires, Hyatt bearings. Many thousands in use. Order on "return if not pleased" basis.

THOMAS TRUCK & CASTER CO.

273 Mississippi River
Keokuk, Iowa

BUTANE-PROPANE News

BUTANE-PROPANE News

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198 South Alvarado St., Los Angeles 4, Calif.

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